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1

FIFTH ANNUAL REGISTER

OF

Purdue University

LA FAYETTE, INDIANA,

1878-~~79~~. 82

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THE
FIFTH ANNUAL REGISTER
OF
Purdue University,

LAFAYETTE, INDIANA,

1878-79.

INDIANAPOLIS:
INDIANAPOLIS JOURNAL COMPANY, STATE PRINTERS
1879.

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Engineer and Superintendent of Buildings.

GEORGE VESTAL,
Horticulturist.

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*To be appointed in June, 1879.

STUDENTS.

I. COLLEGE OF GENERAL SCIENCE.

RESIDENT GRADUATE.

Eulora Miller, B. S.	LaFayette.

SENIOR CLASS.

Nettie Derexa Morey	LaFayette.
Guilford Lawson Spencer	LaFayette.

JUNIOR CLASS.

William Edward Beach	LaFayette.
Margaret Jane Erisman	LaFayette.
J. Augustus Guthrie	LaFayette.
Joel Prescott Hawks	Goshen.
Annie Henderson	LaFayette.
Mabel Miller	LaFayette.
Maude Miller	LaFayette.
Lewis Owens	Chalmers.
Worth Reed	Sugar Grove.
Wilbur Fisk Severson	LaFayette.

Charles Eldridge Avery	LaFayette.
James Nelson Bartholomew	Stockwell.
Carrie Henderson	LaFayette.
Albert King Warren	Carmel.

SOPHOMORE CLASS.

Charles Sumner Downing	Octagon.
Colfax Everett Earl	LaFayette.
Mary Emma Fraser	Terre Haute.

Thomas Cromwell Gard	Frankfort.
Sallie May Glick	LaFayette.
John Martin McBroom	Hillsboro.
James Beverly Milner	Sedalia.
Andrew Edgar Reynolds	Sugar Grove.
William Buchanan Sinclair	San Pierre.
Eva Wilson Smith	LaFayette.
Lilian Gray Smith	LaFayette.
Jesse Florence Thompson	LaFayette.
Allen Russell Vinnedge	LaFayette.
Thomas Perkins Weir	Muncie.
William Emerson White	Chauncey.

FRESHMAN CLASS.

Philip Dodridge Alexander	Mt. Vernon.
Kate Baker	Stockwell.
Henry Abraham Beck	Lebanon.
William Benjamin Boyd	LaFayette.
James Hildbrand Brennan	Shoals.
Maggie Janet Chapman	LaFayette.
Frederick Lavater Clark	Pawpaw.
Fremont Clifford	Connersville.
Charles Sumner Davisson	Galveston.
William Edgar Driscoll	Muncie.
John Will Edwards	South Whitley.
Prince Albert Edwards	South Whitley.
Cassius Clay Hammond	Dublin.
Anna Sarah Hiett	Sugar Grove.
Oliver Perry Morton Jamison	Chauncey.
Lew Wallace Knefler	Indianapolis.
Stephen Allen Douglas Samuel Lyons	Boundary City.
George Emerson Marsteller	Chauncey.
Elwood Mead	Patriot.
Oliver Morton Nisley	LaFayette.
Alvy Owen Reser	LaFayette.
James Birney Shaw	Chauncey.
Edward Ewing Sickler	Otterbien.
Jacob Warren Sleeper	Chauncey.
Jessie Vermilya Talbot	LaFayette.
Lura Thompson	LaFayette.
Mahlon Augustus Vinnedge	Kokomo.
William Edward White	Oxford.

David Russell Wiggins	Connersville.

Asa Levi Burroughs	LaFayette.
Flora May Chizum	Chauncey.
Charles Roscoe Collins	LaFayette.
Ellen Mary O'Connor	LaFayette.
William Montague Simpson	LaFayette.

STUDENTS PURSUING SELECTED STUDIES.

Mary Watson Gleason	LaPorte.
Mary Ettie Hamlin	LaFayette.
George Charles Hanks	LaFayette.
Lucy Kerper	LaFayette.
Fannie Amelia Morey	LaFayette.
Clarence Severson	LaFayette.
John E. Steele	Chauncey.
Florence Taylor	Taylor's Station.
John Leighton Zeigler	Dayton.
William Osborn Zeigler	Dayton.

II. SPECIAL SCHOOLS.

SCHOOL OF CHEMISTRY.

Guilford Lawson Spencer	LaFayette.

SCHOOL OF INDUSTRIAL ART.

Henry Abraham Beck	Lebanon.
Joel Prescott Hawks	Goshen.
Annie Henderson	LaFayette.
Lew Wallace Knefler	Indianapolis.
Eulora Miller	LaFayette.
Nettie Derexa Morey	LaFayette.
Worth Reed	Sugar Grove.
Clarence Severson	LaFayette.
Edward Ewing Sickler	Otterbien.
Jessie Florence Thompson	LaFayette.
Albert King Warren	Carmel.

III. THE UNIVERSITY ACADEMY.

SECOND YEAR CLASS.

James Wilson Allen	West Newton.
Benjamin Lindsay Blair	Bridgeport.
Stephen Wheeler Brady	LaFayette.
William Allen Bringham	Montmorency.
Luther Keil Campbell	Salesville, Ohio.
Lewis Nathaniel Charles	Indianapolis.
Howard Dwiggins	Waynetown.
Anna Laura Foster	Green Hill.
Rose Williams Foster	Green Hill.
Otis Thacker Green	Hornellsville, N. Y.
Gilbert Frank Greenwood	Hamilton.
Thomas Porter Hawley	Chauncey.
Abbie Cooper Hawkins	Wea.
Benjamin Franklin Hoopingarner	Butler.
Pierce Irvin Kenney	LaFayette.
Lizzie Irene Martin	Chauncey.
Charles Almus Marsteller	Chauncey.
David Harmon Moffitt	Williamsport.
John Walker Moore	Montmorency.
Oswald Fredolin Morgan	Newton's Retreat.
Alice Ritchie O'Neall	LaFayette.
Millie Melvina Peterson	Potato Creek.
Samuel Martin Peterson	Potato Creek.
Clinton Ray	LaFayette.
John Jacob Roush	LaFayette.
Frederick Severson	LaFayette.
William Milton Shafor	Sedalia.
Mary Elliott Sleeper	Chauncey.
Charles Anderson Smith	LaFayette.
Fielding Henry Smith	Kokomo.
Mary Agnes Sullins	Chauncey.
Anna Taylor	Taylor's Station.
George King Throckmorton	Romney.
Charles Eden Welch	Holder, Ill.
Edmund Claxton Wilstach	LaFayette.

FIRST YEAR CLASS.

Mary Wattles Beach	LaFayette.
Jacob Newton Benham	Benham's Store.
Kate Luvenia Bishop	Peru.

Sarah Ettie Brinegar	Chauncey.
Frank Owen Brown	Shawnee Mound.
Allen Aldebert Cornell	Stockwell.
Horace DeHart	LaFayette.
Herman Woolcot Doolittle	LaFayette.
Alta Marion Dresser	LaFayette.
James William Dunn	Wheatland.
Fannie Eliza Ewry	Chauncey.
Nona Falley	LaFayette.
Leland Fleming	West Lebanon.
William McKee Foulks	Vincennes.
Hattie Belle Frederick	Chauncey.
Frank Wilson Gee	LaFayette.
George Wright Gelvin	Olean.
Allen Rumsey Gilmore	Boggstown.
Randolph Goldsberry	Dayton.
Anna Mary Hall	Glen Hall.
Robert Edmund Haynes	Montgomery.
John Hazelrigg	Hazelrigg.
Oliver Hazelrigg	Hazelrigg.
Harry Andrew Insley	Chauncey,
Seth Miller Kent	Brookston.
Minnie Kerper	LaFayette.
Frank Tracey MaGovern	Chauncey.
James George MaGovern	Chauncey.
Essie Gertrude Martin	Chauncey.
John Franklin Masten	LaFayette.
George Washington McCoy	Lovely Dale.
Horace Willard Miner	Frankfort.
Edgar Mount Moore	LaFayette.
Erastus Kirk Newton	Wea Plains.
William Oilar	LaFayette.
Mary Belle Perkins	Chauncey.
Charles Fremont Pickerill	LaFayette.
Harry Elisha Rank	Chauncey.
Reuben Baker Reser	Stockwell.
William Sall Rhorer	Hartsville.
George Canote Sheeks	Mitchell.
Albert Morse Slinkard	Vincennes.
Katie Helena Smith	Chauncey.
Antonio Linus Mendilla Surface	LaFayette.
Jennie Terry	Chauncey.
Warner Thompson Throckmorton	Romney.
Elmer Samuel Walker	West Lebanon.
William Weyher	Chauncey.

STUDENTS NOT IN REGULAR COURSE.

Etta Ball	LaFayette.
Oscar Benjamin	LaFayette.
George Blenford Bethell	Boonville.
Merrill Hastings Blake	Mantua, Ohio.
Florence Luella Bordner	Colburn.
Frank Bright	Rainsville.
Douglas Burton	Mitchell.
Frank Dougherty Butler	Peru.
Charles Edward Campbell	South Raub.
Lizzie Collins	LaFayette.
William Sawyer Crain	LaFayette.
William Anderson Creath	Benham's Store.
Levi Nathan Fouts	West Point.
Henry Chalmers Fullenwider	Brown's Valley.
Hubbard Hartley	Yanktown.
Charles Hazelrigg	Hazelrigg.
Charles Haskel Henderson	LaFayette.
George Hooper Hill	LaFayette.
Phineas Martin Kent	Brookston.
George Christopher Magnett	Goldsmith.
Charles Edgar Martin	LaFayette.
Clayton Martz	Arcadia.
Margaret Amelia McBeth	LaFayette.
John Theophilus William Orchard	Richmond.
Zimri Parris	Rensselaer.
John Wendell Parris	Rensselaer.
Francis Clark Price	Remington.
Louie Richards	Dupont.
Nettie Richards	Dupont.
Ernest S. Robins	Shelbyville.
Lizzie Shoemaker	Chauncey.
Allie May Surface	LaFayette.
William Ulysses Templeton	Templeton.
Daniel Webster Thomas	Galveston.
Alice Weaver	LaFayette.
Frederick Edward Weigand	Chauncey,

SUMMARY.

COLLEGE.

Resident Graduate	1	
Seniors	2	
Juniors	14	
Sophomores	15	
Freshmen	34	
Elective	10	
	—	76

SPECIAL SCHOOLS.

Chemistry	1	
Industrial Art	11	
	—	12

ACADEMY.

Second year	35	
First year	48	
Not regular	36	
	—	119
		207
Students twice entered, (deducted)		12
Total		195

STUDENTS IN SUMMER ART SCHOOL.

Blanche W. Brown	LaFayette.
Anna S. Clark	River Falls, Wis.
Ada B. Falley	LaFayette.
Nannie Groenendyke	LaFayette.
F. W. Hanawalt	Monticello.
Eli Jay	Richmond.
Mahala Jay	Richmond.
Edna C. Jackson	LaFayette.
Eulora Miller	LaFayette.
J. C. Mulkins	Evansville.
Miss R. E. Selleck	Ypsilanti, Mich.
W. F. Sharpe	Kentland.
Sallie P. Shields	LaFayette.
Lucy T. Suliot	Salem, Ohio.
Emma A. Weaver	East Saginaw, Mich.

COURSES OF STUDY.

Purdue University is a college of Science, Agriculture, and the Mechanic Arts. It embraces three departments, designated as follows:

I. The College of General Science.
II. Special Schools of Science, Agriculture, and the Mechanic Arts.
III. The University Academy.

The aim and scope of these departments are indicated below. They are open to students of both sexes.

I. THE COLLEGE OF GENERAL SCIENCE.

The College of General Science aims to give a thorough scientific education, first, as a general preparation for all industrial pursuits and the duties of citizenship, and, secondly, as an adequate preparation for special courses of study.

The course of study prescribed for the degree of bachelor of science, is similar to the "Scientific Course" in several other American universities and colleges, but it devotes more time to the natural and physical sciences. These are the *leading* branches in the course, requiring more than one-third of the student's time for the entire period of four years. Physics and Chemistry have each one year, and Natural History and Geology two years. The University is provided with apparatus for teaching these sciences in a thorough and practical manner. The course also gives more prominence to Industrial Art.

The following outline gives the courses of study in the College and in the Special Schools, and also shows the relation between them:

COURSES OF STUDY IN COLLEGE OF GEN

N. B. The branches of study required for the degree of Bachelor of Science are printed in

Freshman Year	1st Term	ZOOLOGY	PLANE GEOMETRY	LATIN* OR GERMAN*
	2d T'm.	ZOOLOGY, 6 w. PHYSIOLOGY, 6 w.	SOLID GEOMETRY	LATIN OR GERMAN
	3d Term	BOTANY	SOLID GEOMETRY, 5 w. HIGHER ALGEBRA, 6 w.	LATIN OR GERMAN

ENGLISH COMPOSITION and ANCIENT HISTORY†, each one lesson a week.

Sophomore Year	1st Term	BOTANY	HIGHER ALGEBRA	LATIN* OR GERMAN*
	2d Term	PHYSICS	TRIGONOMETRY (Plane & Sph.)	LATIN OR GERMAN
	3d Term	PHYSICS	SURVEYING	LATIN OR GERMAN

RHETORIC, two lessons a week, and HISTORY†, one lesson.

Junior Year	1st Term	CHEMISTRY‡	ANALYTICAL GEOMETRY	LATIN* OR GERMAN*
	2d Term	CHEMISTRY‡	ANALYTICAL GEOM'TRY, 6 w. ASTRONOMY, 6 w.	LATIN OR GERMAN
	3d Term	CHEMISTRY ‡	ASTRONOMY	LATIN OR GERMAN

ENGLISH LITERATURE, two lessons a week, and HISTORY†, one lesson.

Senior Year	1st Term	GEOLOGY‡	*Differential Calculus*	*Latin or German*
	2d Term	GEOLOGY‡	*Integral Calculus*	*Latin or German*
	3d Term	U. S. CONSTITUTION	*Logic*	*Latin or German*

*Not required of students who take Agriculture and Horticulture, or Mechanics.

†In place of one lesson in Latin and German.

‡Two hours daily.

N. B. Students are not permitted to take an irregular course in the Freshman or Sophomore year. They are required to pursue one of the three courses prescribed above, viz.: the regular Scientific Course, including all the branches required for the degree of Bachelor of Science, or the Agricultural Course, or the Mechanical Course, each of the latter including, in addition to Agriculture and Horticulture or Mechanics, all the studies of the Scientific Course, *Latin and German excepted.* Applicants wishing to take a special course in one or two branches, will be admitted if they are prepared to do the required work.

All the studies of the Senior year, Geology and the Constitution of the United States excepted, are *elective.* Candidates for the degree of Bachelor of Science are required to pursue daily, during

ERAL SCIENCE AND SPECIAL SCHOOLS.

small capitals and the elective branches in italics.

INDUSTRIAL DRAWING	*Agriculture and Horticulture*§	*Practical Mechanics.*§
INDUSTRIAL DRAWING	*Agriculture and Horticulture*	*Practical Mechanics.*
INDUSTRIAL DRAWING	*Agriculture and Horticulture*	*Practical Mechanics.*

Military Tactics, three exercises a week.

Industrial Design§	*Agriculture and Horticulture*	*Practical Mechanics.*
Industrial Design	*Agriculture and Horticulture*	*Practical Mechanics.*
Industrial Design	*Agriculture and Horticulture*	*Practical Mechanics.*

Military Tactics, three exercises a week.

Industrial Design	*Agriculture and Horticulture*	*Mechanical Engineering.*§
Industrial Design	*Agriculture and Horticulture*	*Mechanical Engineering.*
Industrial Design	*Agriculture and Horticulture*	*Mechanical Engineering.*

Military Tactics, three exercises a week.

Political Economy	*Chemistry*§ *or Physics*§	*Natural History*§	*Mechanical Engineering.*
Mental Philosophy	*Chemistry or Physics*	*Natural History*	*Mechanical Engineering.*
Moral Philosophy	*Chemistry or Physics*	*Natural History*	*Mechanical Engineering.*

Post Graduate	Chemistry and Physics	See courses in Special School.
	Natural History Sciences	See courses in Special School.
	Industrial Art	See courses in Special School.

§For courses of instruction and practice, see Special Schools, pp. 20–26.

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the Senior year, three branches selected from the general course, or to devote one-half of their time to studies in the general course, and the other half to a course in one of the Special Schools. This enables a thorough student to complete the course in any one of the Special Schools in one year after graduating from the College of General Science.

INSTRUCTION IN SCIENTIFIC COURSE.

The instruction in Zoölogy aims to give the pupil a general knowledge of the structure, habits, modes of growth, etc., of common animals—the lower animals receiving due attention. The pupil is taught how to collect objects and how to study them, and, having thus learned the leading features of a few groups, he is prepared to take a complete view of systematic zoölogy. Special care is taken to give the pupil some knowledge of the material classified before he is taught classification.

The instruction in Physiology is given by lectures, with illustrations. Physiological microscopy and histology receive special attention; also anatomy and the general principles of hygiene.

The instruction in Botany in the Freshman and Sophomore years includes descriptive botany; physiological botany, including the method of growth, the food, the circulatory system, and the secretions of plants; and structural botany, the tissues of plants being studied by means of the microscope. There is field and herbarium work throughout the course, and applications of the science to agriculture and horticulture receive special attention.

The course in Physics in the Sophomore year includes the elements of mechanics, hydrostatics, pneumatics and acoustics, the first term; and chemical physics, including heat, light, statical and galvanic electricity, the second term.

The course in Chemistry in the Junior year includes theoretical and experimental chemistry, and the elements of synthetical chemistry, analytical chemistry (qualitative analysis), and crystallography. The instruction includes lectures and recitations (5 hours a week), and laboratory practice (5 hours a week). Students use the balance and apply the principles of stoichiometry from the first. Definite quantities of substances are used and the product of each reaction weighed or measured, and the *actual* quantities thereof compared with the theoretical. Reports of all work done are made out on blanks, provided for the use of students.

The course in Geology embraces the principles of Geology, with its history and terminology, dynamical geology, and paleontology.*

The course in Mathematics includes branches taught in the best colleges, but more than the usual time is given to the branches below the Calculus.

Every educated person should have a knowledge of at least one language besides his own, and this fact is recognized in the course required for the degree of bachelor of science. The student is permited to choose one of two courses in language, taking Latin or German. Latin or German may be continued through the Senior year.

The course in Latin includes, in the Freshman year, the grammar, the reader, and prose composition; in the Sophomore year, three books of Cæsar, seven orations of Cicero, and prose composition; in the Junior year, six books of Virgil, two terms, and De Senectute, one term; in the Senior year, Livy, one term, Horace, one term, and Tacitus, one term.

The course in German includes, in the Freshman year, Ahn's Practical Course, Ahn's First Reader (Henn), and composition and conversation; in the Sophomore year, Ahn's German Grammar, Ahn's Second Reader (Henn), composition and conversation; in the Junior year, Schiller's William Tell and Mary Stuart, Goethe's Egmont, composition and conversation; in the senior year, a scientific work in German, Goethe's Faust, history of German literature and language (by lectures), and composition and conversation.

The instruction in the English language is made as practical and comprehensive as possible. The course in the Freshman year is chiefly devoted to English composition—

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*The higher courses in Zoölogy, Botany, Chemistry, Physics, and Geology, which may be taken in the Senior year, are described in the courses for the Special Schools, pp. 20–26.

to actual practice in the use of the language, orally and in writing. The course in the Sophomore year is devoted to Rhetoric, with a critical analysis of the works of several authors.

The instruction in English Literature aims to interest and direct the student in the reading of the best works of one or more of the leading authors of each great epoch. It is believed that such a course is much more valuable than the memorizing of a catalogue of authors, with glances at specimens of their style. The course in the Senior year includes what may be called the philosophy of literature—its origin, development, and growth.

The instruction in History, after the Sophomore year, is designed to be the basis of a course of historical reading, extending through the Junior year. The weekly lesson includes a review of the student's reading, with a general summary and subordination of leading events. It is hoped that this course not only imparts some knowledge of history, but, what is better, that it creates a taste for historical reading.

The instruction in Drawing, in the Freshman year, first term, includes free-hand outline drawing from round geometrical models, as cylinders, cones, vases, wheels, crockery-ware, and such common objects as illustrate the circle seen obliquely; also the drawing of cubes, triangular and hexagonal prisms, crosses, skeleton cubes, etc. The instrumental work includes parallel, angular, and oblique perspective.

The second term includes the free-hand outline drawing of the rectangular geometrical solids, above enumerated, *in groups*, and the application of such drawing to the drawing of irregular objects, as chairs, tables, desks, sofas, and buildings; also the shading of the same geometrical solids, with the crayon and the stump, and the drawing of them in plan and elevation, illustrating the elementary principles of orthographic projection and development of surfaces.

The third term includes the making of drawings, shaded with the stump, from the round geometrical solids, and free-hand sketching from nature; also isometric and cabinet projections and the projection of shadows with instruments.

CONDITIONS OF ADMISSION.

Applicants for admission to the College of General Science must be over sixteen years of age and of good character. Those possessing more than common physical health and strength, with high attainments in preparatory studies, may be admitted at an earlier age.

Applicants for admission to the Freshman class must pass a satisfactory examination in the common branches, and also in Elementary Algebra (including quadratic equations), the History of the United States, Physical Geography, and Physiology. An applicant's knowledge of the common branches must be sufficient to entitle him to a teacher's certificate of good grade. Applicants for admission to higher classes must pass an examination in the lower studies. Applicants who have completed their course of preparation in High Schools which hold the certificate of the State Board of Education, will be admitted without examination.

The entrance examinations are held in June and September of each year—in 1879, June 17 and 18, and September 9 and 10. Applicants may appear at either examination, but, when practicable, it is best to apply for admission in June.

II. SPECIAL SCHOOLS.

The following Special Schools have been organized, or will be organized at the opening of the University in September, 1879:

I. School of Agriculture and Horticulture.
II. School of Mechanics.
III. School of Industrial Art.
IV. School of Chemistry and Physics.
V. School of Natural History.

The courses of study in the first three of these Special Schools may be taken in connection with the Scientific Course in the College, omitting Latin and German. A part of the special courses in Chemistry and Physics and Natural History may be pursued in the Senior year, as explained on page 16.

The schools of Agriculture and Horticulture, Mechanics, and Industrial Art are open to all persons who meet the conditions prescribed for admission to the College of General Science. Applicants who wish to devote full time to a special course, must have the requisite knowledge of preparatory branches.

The schools of Chemistry and Natural History are open to students who have completed the first two years of the College course, and the School of Physics to those who have completed the first three years of the College course.

Graduates from other institutions, who have received the degree of bachelor of science or bachelor of arts, will be admitted to any one of the Special Schools without examination. Graduates will be able to complete the course in any one of the Special Schools in two years.

The statements and schedules below are intended to give a general idea of the courses of instruction and practice in the Special Schools.

I. SCHOOL OF AGRICULTURE AND HORTICULTURE.

The course of study will be arranged in detail before the opening of the fall term. The course in Agriculture will include the mechanical cultivation of the soil; drainage and irrigation; stock breeding; farm buildings and machinery; farm economy; agricultural experiments; agricultural botany; physiology, as related to domestic animals; veterinary surgery, etc. The course in Horticulture will include fruit culture; floriculture, with hot-house management; the cultivation of forest trees; landscape gardening, etc. A few acres of ground will be devoted to agricultural experiments under the direction of the Professor of Agriculture.

II. SCHOOL OF MECHANICS.

The course of instruction and practice will be fully arranged before the opening of the fall term, in September next. A competent instructor will be employed. It is proposed to adopt the Russian method, recently introduced into several American schools of technology. The course will begin with wood-turning, wood-carving, and vice work in iron. Students taking the course will be required to spend a part of each day in work at bench, vise, lathe, etc. The shop-work in Mechanics will be followed by the course in Mechanical Engineering.

III. SCHOOL OF INDUSTRIAL ART.

The instruction in this school includes two courses, as follows:

I. INDUSTRIAL DESIGN.

FIRST YEAR.

Free-hand and instrumental drawing, in addition to the course prescribed for the Academy and College classes, will include drawing and shading from casts; shading with different mediums, as crayon, charcoal, sepia, neutral tint, india ink, etc.; botanical analysis of plants and the conventionalization of foliage from nature for purposes of design; historical ornament; harmony and contrast of color.

SECOND YEAR.

The second year will be devoted almost entirely to designing articles of manufacture and their ornamentation, as furniture, iron-work, stone carving, carpets, porcelain, wall paper, prints, oil-cloth, stained glass, etc.; also, to the modeling in clay of various ornamental designs suitable for carving in stone or wood.

II. MECHANICAL DRAWING.

FIRST YEAR.

Same as first year of course in Industrial Design, except that the instrumental drawing will include the drawing of the details of machinery.

SECOND YEAR.

1. Drawings made to scale of engines and other machines, showing plans, elevations, and sections from copy.
2. Drawings of machines, as a lathe, engine, or other machine, from measurements made by students
3. Drawings made from data given.
4. Original designs for machines, giving plans, elevations, sections, etc.
5. Orthographic projection and projection of shadows will be continued from first year, and, in addition, Descriptive Geometry, development of surfaces, intersections of solids, and stereotomy will be studied.

IV. SCHOOL OF CHEMISTRY AND PHYSICS.

I. CHEMISTRY.

FIRST YEAR.

Same as in Junior year of the Scientific course.

SECOND YEAR.

First Term.—Lectures on Qualitative Analysis, five hours a week; laboratory practice, ten hours a week.

Second Term.—Lectures on Qualitative Analysis continued; soils, minerals, and fertilizers; principles of Quantitative Analysis. Instruction, five hours a week; laboratory practice, ten hours a week.

Third Term.—Processes of Quantitative Analysis continued; general review of principles of analysis. Instruction, five hours a week; laboratory practice, ten hours a week.

THIRD YEAR.

The studies of this year are arranged in three divisions, and a student, especially a graduate, should be able to pursue successfully at least two of them. It is expected that students in the third year's course will give from six to eight hours a day to actual work in the laboratory, since it is only by constant practice that celerity and accuracy can be attained.

I. *Mineralogy.*—Descriptive and mathematical crystallography; drawing of crystal forms; use of goniometer; determinative mineralogy, to be taught in the Mineralogical Laboratory.

The Laboratory is provided with reflecting and common goniometers, a full set of crystal models in glass, with colored silk thread axes, and a set of wooden crystal models to illustrate modified forms. It is also provided with a respectable collection of minerals, suitable for illustration of physical properties and for use in chemical analysis.

II. *Metallurgy and Assaying.*—The course will include the assaying of lead, silver, and copper ores, the assaying of coins, plate, etc., the reduction of iron and zinc ores, and the manufacture of wrought iron and steel.

Crucible assays and cupellations will be practiced with ores of lead, silver, gold, and copper, but with coin and plate the volumetric assay will be chiefly employed. Instruction will also be given in electro-plating and the composition of alloys.

When practicable, excursions will be made to inspect furnaces in operation. Iron furnaces are accessible at Brazil and Knightsville, Bessemer steel works at Chicago, and zinc furnaces at La Salle, Illinois.

N. B. Students in Metallurgy and Assaying are required to take the course in Mineralogy.

III. *Organic Chemistry.*—Lectures, recitations, and laboratory work. Special attention is given to the practical study of fermentation, properties and synthesis of alcohol, coal-tar products, etc. This work will have special reference to technical applications.

The Chemical Laboratory has a well selected library, relating to all departments of the science. Among the journals taken are "The Chemical News," London, "Chemisches Central-Blatt," Leipzig, and the "American Journal of Chemistry."

II. PHYSICS.

FIRST YEAR.

Same as in the Sophomore year of the Scientific course. This instruction is a good preparation for the special study of the subject.

SECOND YEAR.

Chief attention is given to heat, light, sound, and electricity, and the principal means of instruction is laboratory practice, supplemented by lectures and recitations. The Physical Laboratory is not yet completely equipped, but it affords facilities for a year's work, two to three hours a day.

V. SCHOOL OF NATURAL HISTORY.

The studies in Natural History are arranged under the divisions of Botany, Zoölogy, and Geology, and students will be permitted to select the branch to which they wish to give special attention.

I. BOTANY.

FIRST YEAR.

First Term.—Structural and Physiological Botany, same as in general course, with the addition of the more recondite facts and principles, including the character and relations of parts of seeds, morphology, facts and methods of fertilization, origin of tissues, relation of plants to animals, species, etc.

Second and Third Terms.—Special Botany, including the study of grasses, sedges, and higher cryptogams, and the laws of plant distribution, with original work.

SECOND YEAR.

First Term.—History of systems of classification.

Second Term.—Economic Botany, including the history of cultivated plants, and vegetable substances used for food and medicine, and in the mechanical, textile, and ornamental arts.

Third Term.—Special work in Cryptogamic Botany and Vegetable Paleontology.

There will be field and herbarium work throughout the entire course. The University has a fine Herbarium and valuable works for reference and study.

II. ZOOLOGY.

FIRST YEAR.

First and Second Terms.—Comparative Zoölogy, and history of classification.

Third Term.—Structural relations of the animal kingdom.

SECOND YEAR.

Special Zoölogy.—Collections, and work in Museum.

Students in Zoölogy, in this second year's course, will usually have some specialty to which they will devote themselves. Opportunity for special study will be afforded in the collection of specimens in this department, and in the student's own field-work, which will be an important element in his progress. The University is provided with a first-class microscope and other means of histological study.

III. GEOLOGY.

FIRST YEAR.

Same as in Senior year of Scientific course, but with more original work in field and cabinet.

SECOND YEAR.

First Term.—Economic Geology—the materials in the earth's crust useful to man, their history and methods of discovery.

Second Term.—Stratigraphy, and stratigraphical paleontology; methods of determining strata from their location, arrangement, and composition, and the use and value of animal and vegetable remains in determining classification of strata.

Third Term.—Practical Geology, the applications of the science in public and private surveys; special paleontology.

There will be work in field and cabinet throughout the course.

SHORT COURSES.

Students who, for good reasons, may not desire to take the full course in any Special School, will be permitted to take a shorter course, provided they are able to enter the regular classes.

DEGREES.

The degree of Bachelor of Science (B. S.) will be conferred on students who complete the course in the College of General Science.

The degree of Doctor of Science (D. S.) will be conferred on persons holding the degree of B. S., who, having devoted at least three years to the advanced study of science, pass an examination on the same and submit a thesis.

The degree of Analytical Chemist (A. C.) will be conferred on students who complete the course in Chemistry.

A diploma will be granted to students who complete the course in any one of the other Special Schools.

Candidates for either of the above degrees, or for a diploma, may present themselves at the annual examination before commencement. Application should be made at least three months before the examination. A residence at the University is not required.

III. THE UNIVERSITY ACADEMY.

The Academy has the two-fold object of preparing students for admission to the College of General Science, and of providing elementary instruction in the sciences for those who can not take a more extended course.

The course for the first year provides a thorough review of the common English branches, with elementary instruction in Drawing and Physiology. The aim is to supplement the common school by imparting a more thorough knowledge of these branches than is usually given in country districts.

The second year's course includes the elements of higher branches, with more advanced and practical work in English, including analysis and composition. The instruction in Zoölogy, Botany, and Physics is chiefly oral, and is designed to impart a knowledge of those elementary facts and principles which have a practical relation to agriculture and the mechanic arts.

Students who expect to attend the Academy but one or two terms, and those who, for other good reasons, may not wish to take the regular course, will be permitted to pursue selected studies, provided they are prepared to recite in the classes already organized. *Special classes can not be formed.* As a condition of selecting second-year studies, students must pass an examination in the corresponding study or studies of the first year. Students once admitted to a class can not leave it, except at the close of a term, and then only by permission of the Academy Faculty.

The regular course of study is as follows:

COURSE OF STUDY IN THE ACADEMY.

FIRST YEAR.

First Term.......Arithmetic..............Geography.............English Grammar....Reading and Spelling.

Second Term....Arithmetic..............Geography.............English Grammar....Reading and Spelling.

Third Term......Arithmetic..............Physiology.............English Grammar....Reading and Spelling.

Free-hand Drawing, two lessons a week; Penmanship, two lessons; and Composition, one lesson.

SECOND YEAR.

First Term.......Elementary Algebra.....Physical Geography......English.........Zoölogy.*

Second Term....Elementary Algebra.....United States History....English.........Elementary Physics.*

Third Term......Elementary Algebra.....United States History....English.........Botany.*

Geometrical Drawing, two lessons a week, and Book-Keeping *(single and double entry), two lessons.

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* A knowledge of Zoölogy, Botany, Elementary Physics, and Book-Keeping not being required for admission to the College, these branches are *elective*.

The instruction in Drawing, the first year, includes free-hand outline drawing from copy, dictation, and memory, and the elementary principles of ornament as applied to flat surfaces. The course the second year includes about one hundred problems in geometrical drawing with instruments.

In all the work done in the Academy, the students are required to be thorough and practical—to draw maps, diagrams, charts, profiles, etc., in Descriptive and Physical Geography; to illustrate the text in Physiology, Physics, Botany and Zoölogy by suitable designs, and to supplement their drills in reading by the study of American authors. Recapitulations, analyses and critical discussions are required in History and English.

Special pains is taken to make the work of the Review Class in the summer term practical and suggestive. Much information is given by oral instruction, the use of the microscope, dissections, views with the scientific lantern, etc. An excellent opportunity is thus afforded teachers and others to review the legal branches.

The University Academy is in charge of first-class teachers, and is provided with commodious rooms and other appliances necessary for thorough and practical instruction.

Applicants for admission to the University Academy should be at least fifteen years of age, but those of more than usual physical maturity may be admitted at an earlier age. Applicants for the first year's course are admitted without examination, if their knowledge of the common English branches is believed to be sufficient to enable them to make a thorough review of these branches and pass an examination *in one year*. To this end, they should be able to read and spell and write well, and they should have a fair knowledge of Arithmetic, Geography, and English Grammar, as taught in the common schools.

Applicants for the second year's course are examined in the common branches, and also in Physiology.

Applicants from graded schools in cities and towns are required to present a certificate of good standing in school, both in scholarship and deportment.

This Institution is not designed to be a reformatory, and applicants who are known to have bad habits, will not be admitted. The admission of such persons might soon result in their suspension and the consequent mortification of their parents.

ADVANTAGES.

Purdue University has been in operation less than five years, and it does not claim to afford advantages equal to those furnished by institutions long established and amply endowed. It is believed, however, that there are few institutions in the West which present better advantages for acquiring an education of a scientific or industrial character.

LOCATION.

The University is located about one mile west of the city of LaFayette, and less than half a mile from the village of Chauncey. The grounds are over one hundred feet above high-water mark in the Wabash River, and the buildings command a fine view of the city, valley, and surrounding country. LaFayette is situated at the intersection of four railroad lines, extending respectively from Cincinnati and Indianapolis to Chicago, from St. Louis to Toledo, from Louisville, Ky., to Michigan City, and from Bloomington, Ill., to Muncie. These roads give the University direct railroad connection with all parts of the State.

GROUNDS.

The Campus and Gardens contain twenty acres, bounded on the south and east by wide avenues, bordered with walks and trees, and on the north and west by "wind-breaks" of pines and hemlocks. The grounds are laid out with convenient drives and walks, bordered with hedges and choice trees, and the lawns are ornamented with shrubery and flowers. A practical horticulturist now has charge of the grounds, including the nursery and the garden.

BUILDINGS.

The new college building, "University Hall," has two fronts, each 136 feet in length, and is divided by two hallways, into three sections. The central portion is five stories high, including the basement and Mansard stories, and the two ends are each four stories high, with an attic. The ends of the two hall transepts are surmounted, three by a turret and one by a tower or belfry. The basement is stone and the upper stories brick, with stone trimmings. The building contains a chapel, or assembly hall, 56 by 41 feet, with galleries on three sides; an academy hall, 56 by 41 feet; two society halls, each 51 by 29 feet; a library room, 41 by 27 feet; three cabinet rooms, each 41 by 27 feet; eight recitation rooms, each 29 by 25 feet; two well lighted basement rooms, each 29 by 25 feet; and two suites of lunch and toilet rooms.

The other buildings in use are the Boarding House, the Young Men's Dormitory, the Laboratory, the Military Hall, and the Boiler and Gas House.

The Boarding House contains a spacious dining room, a kitchen, laundry, etc., and rooms for family and servants; also six suites of rooms, originally designed for members of the Faculty, and fourteen rooms for the occupancy of young ladies.

The Dormitory is four stories high. The second, third, and fourth stories contain each twenty-four suites of rooms, each suite consisting of a study room and two bed rooms with closets, and the first story contains four suites of rooms, each consisting of a study room and one bed room, and six rooms each about the size of a study room. If each student is allowed a bed room, the Dormitory will accommodate about sixty students. The building is divided into two sections, and each section has a bath room on each floor.

The first story of the Laboratory contains the Chemical Laboratory, with a complete suite of rooms; the second story affords ample accommodations for the department of Physics; and the basement contains a large Mechanics Shop, and also rooms for assaying, smelting, etc.

The Boiler and Gas House contains four large steam boilers for heating, and two gas retorts for lighting the entire group of buildings. It also contains the engines which are used for pumping water and for supplying needed power for driving the machinery in the Mechanics Shop.

The Military Hall contains a spacious drill room, and smaller rooms for storing arms, etc. The drill room is also well adapted for use as a gymnasium.

The engineer's house, gas refinery, stable, etc., are located on the west side of the grounds. The farm house, barn, granary, and other farm buildings are located on the one hundred acres situated south of the campus, and on the opposite side of the street.

CHEMICAL AND PHILOSOPHICAL APPARATUS.

The University has a good supply of chemical apparatus and a well-equipped Laboratory. Each student is furnished with a full set of apparatus and the necessary chemicals for all his work and experiments, and he is held responsible for their proper use. He is charged with actual breakage and damage. For illustrating the first principles of chemistry, a complete set of Hoffman's apparatus is provided. A fine lantern for projection, with electric light, is used to throw diagrams and formulas on the screen, thus making them plain to a large audience.

The physical apparatus has been selected with more special reference to experimental lectures, and is fullest in the departments of electricity and magneto-electricity. It includes a full set of telegraphic apparatus, two frictional electric machines, batteries of Leyden jars, etc. The celebrated Gramme Machine furnishes an inexhaustible source of electricity for experimental and illuminating purposes. In the department of heat there is a Melloni's apparatus, with all its accessories, and in that of sound a Koenig's Phonautograph, a sonometer, and a set of organ pipes. The additions, soon to be made, will have more reference to laboratory work.

CABINETS AND MUSEUM.

The Geological Cabinet embraces (1) a valuable collection of minerals, including a fine suite of the ores of gold, silver and lead, with associated minerals, from California and Colorado; (2) a good working collection of fossils, illustrating the silurian and carboniferous systems, including a valuable collection of crinoids, purchased of Prof. D. A. Bassett, of Crawfordsville, and representing most of the species of that famous locality; (3) an interesting collection in Anthropology, including numerous stone and flint implements, illustrating the art and customs of the pre-historic inhabitants of this country; (4) a good collection of fossil ferns, from the coal measures, specimens of fossil vertebrates, and numerous other specimens. A large glass-front walnut case, containing a collection of minerals, has been contributed by Col. John Levering, of LaFayette. The collection is to be increased, and will be known as the "Levering Collection."

The Zoölogical Museum embraces (1) fine collections of specimens in Entomology, including fourteen cases, collected chiefly in this vicinity, all neatly mounted and correctly named, and the "Scheuch Collection," consisting of twenty-seven cases of insects, mostly beetles, including seven thousand specimens and over two thousand species, collected chiefly in Southern Europe, and elegantly mounted, correctly named and labeled—the generous donation of Fred. Scheuch, Esq., of LaFayette, now U. S. Consul at Barcelona, Spain; (2) a good collection in Conchology, consisting of marine, land, and fresh-water shells, the latter chiefly of this vicinity; (3) a collection in Ornithology, embracing over one hundred birds of Indiana, several quite rare, all well mounted, over fifty skins, mounted for study and correctly named, and bones, skeletons, crania, etc., for illustration; (4) a collection of skeletons of mammals, several being articulated; (5) a miscellaneous collection preserved in alcohol, consisting of fishes, serpents, and other reptiles; and (6) numerous sections of brain, nerves, bones, glands, and animalcula, etc., prepared as permanent specimens for use with the microscope.

The Herbarium contains over two thousand specimens of mounted plants, and the collection is constantly increased by field work and by exchanges. It is specially full in the grasses and sedges of this State and the ferns of the United States, the sets of each being nearly complete. The means of illustration in Botany also include a set of native woods from this and adjoining counties, seeds, sections, and moist preparations; also mounted specimens for the microscope, to illustrate elementary structure and cryptogamic botany. The botanical collection has recently been increased by a valuable donation of about twelve hundred species of plants, many of them foreign, by G. W. Clinton, Esq., of Buffalo, N. Y., a collector and botanist of wide reputation.

The department of Natural History is supplied with Beck's Large Best Monocular Microscope, with concentric rotating stage and iris diaphragm, and a full set of accessories; Beck's Improved Dissecting Microscope, with two single lenses and two Coddingtons ($\frac{3}{4}$ and $\frac{1}{2}$ inch focus); a case of dissecting instruments, and mounting material.

INDUSTRIAL ART.

This department is supplied with (1) flat copies for outline drawing; (2) flat copies in light and shade for crayon work; (3) colored copies, for water-color painting; (4) flat copies for carpentry, architectural and machine drawing; (5) charts to illustrate the botanical analysis of plants for purposes of design; (6) charts to illustrate analysis of historical ornament; (7) charts to illustrate harmony and contrast of color; (8) a great variety of geometrical solids, vases, and casts for model drawing; (9) samples of prints and other textile fabrics, wall paper, carpets, etc., to illustrate the application of design to manufactures; (10) appliances for modeling in clay. The Library also contains a number of very valuable books of reference for the use of art students.

AGRICULTURE AND HORTICULTURE.

The model farm, containing about one hundred and fifty acres, the experimental field, the nursery, garden, campus, and plant-house to be erected and equipped this summer, will afford these departments valuable means of illustration and practice.

MECHANICS.

The Mechanics Shop is supplied with a large metal lathe, wood lathe, drill press, grind stone, and emery wheels, all driven by steam; also a scroll saw, set of carpenter's tools, forge, anvil, etc. The Boiler and Gas House contains a steam engine, steam pump, etc.

LIBRARY.

The Library occupies a commodious and well-lighted room, appropriately fitted and furnished. It contains a valuable collection of books of reference, in each department, and a goodly number of miscellaneous works. The number of volumes now on the shelves, not including pamphlets and unbound works, is about fourteen hundred. Several hundred volumes will be added the present year. The reading room is well supplied with scientific and art journals, literary periodicals, and daily and weekly papers. The Library is indebted to A. H. Seabury, Esq., of New Bedford, Mass., for eight volumes of the reports of the Department of Agriculture, nineteen volumes of the Massachusetts Agricultural Reports (Flint), and ten bound volumes of the Country Gentleman; to Hon. M. D. White for five volumes, including the "Atlas of Colorado;" and to Hon. M. D. Manson and Prof. D. G. Herron for one work each.

MILITARY TACTICS.

Instruction in Military Tactics is provided for by the law of Congress endowing this Institution, and for several years such instruction has been given. Over fifty students have been members of the military company the present year. The joining of the company is *voluntary*, but, when a student becomes a cadet, he is held to regular attendance and military discipline during the period of his enlistment, which may be for a term or for a year. For unexcused absence or misconduct, a cadet may, at the Captain's discretion, be suspended or expelled from the company. The company is supplied with the best breech-loading rifles, with complete accoutrements. Upton's Tactics is used as a textbook. A cap and blouse may be provided for about $2.00. The drill is believed to be an excellent physical exercise.

SOCIETIES.

A regulation of the University forbids the organization of any society by the students, except by the consent of the Faculty. Students are forbidden to join or be connected with any so-called Greek or other college secret society, and, as a condition of admission to the University, they are required to give a written pledge that they will observe this regulation. A violation of this regulation and pledge forfeits the right of the student to class promotion at the end of the year and to an honorable dismissal. This regulation is made in the interest of *industrial education.*

Two literary societies have been organized by the students—the Irving Literary Society and the Philalethean Society, the former for young men, and the latter for young women. Their exercises, consisting principally of essays, declamations, debates, and orations, have been interesting and profitable. The public exercises of each society are subject, in time, place, and character, to the approval of the Faculty. Each society has a fine hall.

EXPENSES.

The expenses incurred in attending Purdue University are very low. It is believed that no other institution affords equal advantages, at as low a cost.

The charges for the year 1879-80 will be as follows:

Entrance fee in College, per year	$5 00
Entrance fee in Academy, per term, $2.00; per year	5 00
Incidental fee in all departments, per term	3 00
Chemicals and gas for general course in Chemistry, per term	5 00
Matriculation fee in Special Schools	10 00
Chemicals and gas for special course in Chemistry, per term	10 00
Table board, per week, (at Boarding House)	2 50
Room-rent, heat, and light, per week	50
Washing, per dozen	75

From the above it is seen that a student's expenses for thirty-eight weeks in the Academy or College will be as follows:

Entrance and incidental fees	$14 00
Table board	95 00
Room, heat, and light	19 00
Washing, about	12 50
Total for the year	$140 50

All bills, except for washing, must be paid *in advance*, entrance and incidental fees at the beginning of the term or year, and room-rent at the beginning of each term. A pro rata part of all fees paid in advance will be refunded to students who are withdrawn on account of sickness or for want of ability to keep up with their classes.

YOUNG MEN'S DORMITORY.

The young men occupying rooms in the Dormitory, are required to keep them in good order and to observe all other rules governing their occupancy. A failure to observe such rules or other disorderly conduct forfeits a student's right to a room. The occupants of rooms are held responsible for all injury to the same or to furniture and fixtures therein. No fire-arms are permitted to be kept in rooms. Each suite of rooms is furnished with bedsteads, washstands and sets, and tables and chairs. Mattresses and bedding, towels, soap, mirrors, brooms, etc., are furnished by students. Young men occupying rooms may procure table-board at the Boarding House or elsewhere, as they may prefer, but self-boarding in the Dormitory is not allowed.

BOARDING HOUSE.

The Boarding House is rented by Mr. John F. Hall, with whom all arrangements for board are made. The rooms for young ladies in the Boarding House are neatly carpeted and are furnished with bedsteads and mattresses, washstands and sets, tables and chairs. The young ladies furnish bedding, towels, mirrors, etc. The young ladies, who occupy rooms in the Boarding House, are under the personal supervision of Mr. and Mrs. Hall, who are required by their contract to see that the regulations of the University are observed.

PRIVATE BOARDING.

Students who may not wish to board in the University, can obtain board in private families in Chauncey, at reasonable rates. Good accommodations for self-boarding or for club-boarding can also be secured in Chauncey, and the cost of board, including room, may thus be reduced to about $2 per week. A good sidewalk extends from the University to the village.

STUDENTS APPOINTED BY COUNTY COMMISSIONERS.

A law passed March 12, 1877, gives the Board of Commissioners of each county of Indiana the authority to appoint two students to Purdue University, and the students, thus appointed, are exempt from the payment of entrance and incidental fees and the charges for room, heat, and light. The reduction, thus provided for, amounts to $33.00 a year, or about one-fifth of all the charges made by the University. Sixty of the students in attendance the present year were appointed. See page 44.

WORK.

A *few* students have an opportunity to work on the college grounds, or on the farm, or as janitors of the several buildings, and for such work they are paid at the rate of ten cents an hour. Application for work should be made in advance, and no student should come to the University depending on work, if he has not made successful application for it. The amount of work to be done by students is limited.

ATTENDANCE.

The number of students enrolled in the University in 1875-76 (the second year) was 67; the number enrolled in 1876-77 was 139; the number in 1877-78 was 166, and the number this year is 195, including students in the Summer Art School, 209. A continuance of this rate of increase for three years more will give Purdue as large an attendance as any higher institution in the State.

RAILROAD FARES.

Several of the railroads, centering at LaFayette, have agreed to convey students to and from the University (round trip) at one and one-fifth fares. It is hoped that all the roads may make this reduction.

SUMMER SCHOOL OF INDUSTRIAL ART.

The fifth annual session of the Summer School of Drawing for teachers and those who wish to become such, will begin about the first of July, 1880, and continue four weeks, under the management of Prof. L. S. Thompson. The course of instruction will include geometrical drawing, orthographic projection, perspective, free-hand from copy, model and object drawing in outline and in shade, dictation drawing, decorative design, sketching from nature, etc.; also lectures on methods of teaching drawing in Primary, Grammar, High, Evening and Normal Schools. For further information, address Prof. L. S. Thompson, LaFayette, Ind.

APPLICATIONS.

Application for admission to any department of the University should be made to the President, and prior to the opening of a year or term, when this is practicable. In making application by letter, students are requested to give their age, the studies which they have pursued, and a general idea of their attainments. A catalogue will be sent to any address, on application with directions. Address, President of Purdue University, LaFayette, Indiana.

CALENDAR FOR 1879-80.

FIRST TERM.

First term, fifteen weeks, begins Thursday, September 11, 1879, and ends Tuesday, December 23, 1879.

SECOND TERM.

Second term, twelve weeks, begins Tuesday, January 6, 1880, and ends Wednesday, March 24, 1880.

THIRD TERM.

Third term, eleven weeks, begins Tuesday, March 30, 1880, and ends Thursday, June 10, 1880.

EXAMINATIONS.

Examinations of applicants for admission to the college classes of 1879–80, will be held June 17 and 18, and September 9 and 10, 1879.

COMMENCEMENT THURSDAY, JUNE 10, 1880.

STUDENTS' LAW.

AN ACT authorizing the appointment of students to Purdue University by the Board of Commissioners of each county, and to provide for the admittance of such scholars, and defining their privileges therein.

SECTION 1. *Be it enacted by the General Assembly of the State of Indiana,* That the Board of Commissioners of each county in this State may appoint, in such manner as they may choose, two students or scholars to Purdue University, who shall be entitled to enter, remain, and receive instruction in the same, upon the same conditions, qualifications and regulations prescribed for other applicants for admission to, or scholars in said University: *Provided, however,* That every student admitted to said University by appointment, by virtue of this act, shall in no wise be chargeable for room, light, heat, water, tuition, janitor or matriculation fees, and said students shall be entitled in the order of admittance to any room in the University, then vacant and designed for the habitation or occupancy of a student, and such student so admitted, shall have prior right to any such room, subject to the rules of the University, over any student not appointed and admitted as aforesaid.

SEC. 2. That no more than two students at the same time, from any county, shall be entitled to admittance to said University under provisions of this act; but the Board of Commissioners of each county may, from time to time, appoint as aforesaid to any vacancy in their appointments.

SEC. 3. Whereas, an emergency exists for the immediate taking effect of this act, the same shall be in force from and after its passage.

Approved March 12, 1877.

J. D. WILLIAMS,
Governor.

THE

SIXTH ANNUAL REGISTER

—OF—

PURDUE UNIVERSITY,

LAFAYETTE, INDIANA.

1879-80.

INDIANAPOLIS:
DOUGLASS & CARLON, PRINTERS AND BINDERS.
1880.

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Farmer.

LOUIS BIANCHI,
Engineer and Superintendent of Buildings.

GEORGE VESTAL,
Horticulturist.

EULORA MILLER,
Librarian.

STUDENTS.

I. COLLEGE OF GENERAL SCIENCE.

RESIDENT GRADUATES.

Eulora Miller, B. S.	LaFayette.
Guilford Lawson Spencer, B. S.	LaFayette.

SENIOR CLASS.

James Nelson Bartholomew	Stockwell.
Margaret Jane Erisman	LaFayette.
Annie Henderson	LaFayette.
Carrie Henderson	LaFayette.
Lewis Owens	Chalmers.
Worth Reed	Sugar Grove.
Lilian Gray Smith	LaFayette.

JUNIOR CLASS.

James Wesley Cartwright	Fort Wayne.
Marie Emma Fraser	Terre Haute.
John Martin McBroom	Hillsboro.
James Read Meriwether	Fort Wayne.
William Buchanan Sinclair	San Pierre.
Eva Wilson Smith	LaFayette.
Jessie Florence Thompson	LaFayette.
Albert King Warren	Carmel.
Thomas Perkins Weir	Muncie.
Edward Sabin White	Chauncey.
William Emerson White	Chauncey.

SOPHOMORE CLASS.

Philip Doddridge Alexander	Mt. Vernon.
Henry Abraham Beck	Lebanon.
Maggie Janet Chapman	LaFayette.

Fred Lavater Clark	Pawpaw.
Charles Sumner Davisson	Galveston.
William Edgar Driscoll	Muncie.
John Will Edwards	South Whitley.
Prince Albert Edwards	South Whitley.
Sallie May Glick	LaFayette.
Oliver Perry Morton Jamison	Chauncey.
Lew Wallace Knefler	Indianapolis.
Stephen Allen Douglas Samuel Lyons	Boundary City.
George Emerson Marsteller	Chauncey.
Elwood Mead	Patriot.
Alvy Owen Reser	LaFayette.
James Birney Shaw	Chauncey.
Edward Ewing Sickler	Otterbien.
Jacob Warren Sleeper	Chauncey.
Jessie Vermilye Talbot	LaFayette.
Lura Thompson	LaFayette.
George Tiffany Webster	Logansport.
William Edward White	Oxford.

FRESHMAN CLASS.

James Wilson Allen	West Newton.
Katie Luvenia Bishop	Peru.
Benjamin Lindsay Blair	Bridgeport.
William Allen Bringham	Montmorency.
Homer Evens Bunnell	Wolcott.
John McMillen Burrow	Logansport.
Lewis Nathaniel Charles	Indianapolis.
Flora May Chizum	Chauncey.
Carrie Avanelle Cory	Montmorency.
Elroy A. Dillon	Danville.
James Pollock English	Hoagland.
George Franklin Felts	Nine Mile.
Anna Laura Foster	Otterbien.
Rose Williams Foster	Otterbien.
Abbie Cooper Hawkins	LaFayette.
Thomas Porter Hawley	Chauncey.
Charles Haskel Henderson	LaFayette.
Harry Campbell Huffstetter	Orleans.
Harry Lutz	Wea.
Charles Almus Marsteller	Chauncey.
John Grant Fremont McCord	Pine Village.
Alice Ritchie O'Neall	Wea.
Horace Robert Peters	LaFayette.
Walter Henry Peters	LaFayette.

Samuel Martin Peterson	Potato Creek.
Francis Clark Price	Remington.
Walter Stephen Ratliff	Richmond.
James Freeman Rittenhouse.	Liberty Mills.
Otis S. Roberts	Oxford.
John Jacob Roush	LaFayette.
Mary Elliott Sleeper	Chauncey.
Ida Virginia Smith	LaFayette.
Albert Switzer	Elizabethtown.
Anna Taylor	Taylor's Station.
George King Throckmorton	Romney.
James Milo Waugh	Sugar Creek.

STUDENTS PURSUING SELECTED STUDIES.

Berthold B. Bonheim	LaFayette	Chemistry.
Charles Roscoe Collins	LaFayette	Chemistry.
Mary Lizzie Creager	LaFayette	Chemistry.
Claribel Foster	Chauncey	German.
Lena C. Ingersoll	LaFayette	Drawing.
William Ingersoll	LaFayette	Chem. and Draw.
Willie Weyher	Chauncey	Chemistry.
Clarence Malcolmb Wiggam	Deputy Station	Chem. and Physics.

II. SPECIAL SCHOOLS.

SCHOOL OF CHEMISTRY.

James Nelson Bartholomew	Stockwell.
Mary Lizzie Creager	LaFayette.
William Ingersoll	LaFayette.
James Birney Shaw	Chauncey.

SCHOOL OF INDUSTRIAL ART.

James Nelson Bartholomew	Stockwell.
Maggie Janet Chapman	LaFayette.
Marie Emma Fraser	Terre Haute.
Annie Henderson	LaFayette.
William Ingersoll	LaFayette.
Lew Wallace Knefler	Indianapolis.
James Read Meriwether	Fort Wayne.
Worth Reed	Sugar Grove.

Jacob Warren Sleeper	Chauncey.
Guilford Lawson Spencer	LaFayette.
Jessie Florence Thompson	LaFayette.
Lura Thompson	LaFayette.
Albert King Warren	Carmel.

SCHOOL OF MECHANICS.

James Wilson Allen	West Newton.
Lewis Nathaniel Charles	Indianapolis.
Elroy A. Dillon	Danville.
James Read Meriwether	Fort Wayne.
Samuel Martin Peterson	Potato Creek.
Edward Ewing Sickler	Otterbien.

SCHOOL OF AGRICULTURE.

Henry Abraham Beck	Lebanon.
William Edgar Driscoll	Muncie.
Lew Wallace Knefler	Indianapolis.
Stephen Allen Douglas Samuel Lyons	Boundary City.
George Emerson Marsteller	Chauncey.
Elwood Mead	Patriot.
Francis Clark Price	Remington.
Walter Stephen Ratliff	Richmond.
Otis S. Roberts	Oxford.
Jacob Warren Sleeper	Chauncey.
James Milo Waugh	Sugar Creek.

III. THE UNIVERSITY ACADEMY.

SECOND YEAR.

William Francis Bartmess	Dayton.
Mary Wattles Beach	LaFayette.
Jacob Newton Benham	Benham's Store.
Stephen Wheeler Brady	LaFayette.
Frank Bright	Rainsville.
Bessie Coffroth	LaFayette.
William Randolph Coffroth	LaFayette.
William Anderson Creath	Benham's Store.
Wilford Elizur Deming	West Lebanon.
Herman Woolcott Doolittle	LaFayette.
Alta Marion Dresser	LaFayette
Lewis David Einsel	LaFayette.

Alice Farmbrough	Boggstown.
Allen Rumsey Gilmore	Boggstown.
William B. Gray	Waynetown.
Pola Melancthon Groundt	Edinburg.
Clement Laird Harris	Montgomery.
Robert Edmund Haynes	Washington.
William Penn Hunnicutt	Economy.
Nancy May Jamison	Chauncey.
John Emmett Johnston	Montezuma.
Minnie Kerper	LaFayette.
Otto Kimmel	LaFayette.
Jessie Frances Levering	LaFayette.
Frank Tracey Magovern	Chauncey.
James George Magovern	Chauncey.
Frank Benton McConnell	Tipton.
George Washington McCoy	Lovely Dale.
Addis Emmett McEneny	Sullivan.
David Harmon Moffitt	Williamsport.
Milton Thomas Moore	Pimento.
Philo Josephus Mutz	Edinburg.
Lulu Belle Patton	Chauncey.
Clarence Milton Parks	Sullivan.
Robert Sigismund Parris	Rensselaer.
Mary Belle Perkins	Chauncey.
Harry Elisha Rank	Chauncey.
Annie Rarey	South Raub.
Louis Ruth Raub	South Raub.
William Preston Stout	Pimento.
Jennie Terry	Chauncey.
Warner Thompson Throckmorton	Romney.
Etta Icelonia Wall	LaFayette.
Mary Florence Walton	Octagon.
Thomas Whalen	Stockwell.
Edward George Wilson, Jr	Montezuma.

FIRST YEAR AND IRREGULAR.

Frank Allen	Covington.
Sebastian Anderson	Petersburg.
Minnie Baker	Monitor.
Etta Freedom Birch	Chauncey.
Mary Atrah Brinegar	Chauncey.
Eugene Clifford Brown	LaFayette.
Frank Elmer Brown	LaFayette.
John Edward Clary	Delphi.
Ulysses Morton Creath	Benham's Store.

Mary Elizabeth Deer	Rainsville.
Horace De Hart	LaFayette.
Albert William Doty	Petersburg.
Emma Caroline Dresser	LaFayette.
John Douglas Dunn	Wheatland.
Charles Dwiggins	Waynetown.
Kate English	Hoagland.
Fannie Eliza Ewry	Chauncey.
John Jacob Ewry	Chauncey.
William Irvin Florence	Rensselaer.
Michael Joseph Glenn	Talbot.
Anna May Grove	LaFayette.
Annie Mary Hall	Glenn Hall.
Emma Lucy Hanley	Chauncey.
Julia Lilian Harvey	LaFayette.
William R. Henderson	Martinsville.
Walter Phelps Higley	Octagon.
Ella Belle Howard	Chauncey.
Hans Isler	LaFayette.
Marion Edgar Laybourne	Sidney, Ill.
Oliver Perry Lutz	Wea Station.
Charles Alvin Martin	South Raub.
Charles Edgar Martin	LaFayette.
Essie Martin	Chauncey.
Laura Irena Martin	South Raub.
Walter Martin	Chauncey.
James Walker McBeth	LaFayette.
James McCormick	LaFayette.
Ida Mary Metzger	LaFayette.
Charille Jane Moffitt	Remington.
Reuben Robinson Moffitt	Remington.
Richard Robinson Moffitt	Remington.
Ada Byron Moore	Chauncey.
Dellie Neff	Logansport.
William Noonan	Hartford City.
Ellen Mary O'Connor	LaFayette.
William Oilar	LaFayette.
Pehr August Peterson	Edinburg.
Samuel Rossiter	Boswell.
Frank M. Schilling	LaFayette.
William Milton Shafor	Sedalia.
Elizabeth Josephine Shoemaker	Chauncey.
Jennie Smiley	Chauncey.
Luther Vance Smiley	Chauncey.
Joseph Wesley Spitler	Kentland.

Edward Stockton	Chauncey.
Ella Stockton	Chauncey.
Frank Stockton	Chauncey.
George McClellan Stoy	LaFayette.
Allie May Surface	LaFayette.
Antonio Linus Mendilla Surface	LaFayette.
Edward Taylor	Taylor's Station.
Ema Roselyn Thornell	Chauncey.
Jesse Woodard Timmons	Otterbien.
Charles Wheeler Travis	Chase.
Lilla Wagner	Green Hill.
Elmer Samuel Walker	West Lebanon.
Arthur Beaver Westfall	Newton's Retreat.
Lide S. Westfall	Montmorency.
James Douglas Williams, Jr	Wheatland.
Frank Genners Wilstach	LaFayette.
Emory James Yäger	LaFayette.

SUMMARY.

COLLEGE.

Resident Graduates	2	
Seniors	7	
Juniors	11	
Sophomores	22	
Freshmen	36	
Elective	8	
	—	86

SPECIAL SCHOOLS.

Chemistry	4	
Industrial Art	13	
Agriculture	11	
Mechanics	6	
	—	34

ACADEMY.

Second year	46	
First year and irregular	71	
	—	117
		237
Students twice entered (deducted)		34
Total		203

Note.—The number of students enrolled in the University in 1874-75 (the first year) was 64; the number enrolled the second year was 67; the third year, 139; the fourth year, 166; the fifth year, 195; the sixth or present year, 203.

COURSES OF STUDY.

Purdue University is a college of Science, Agriculture, and the Mechanic Arts. It embraces three departments, designated as follows:

I. The College of General Science.

II. Special Schools of Science, Agriculture, and the Mechanic Arts.

III. The University Academy.

The aim and scope of these departments are indicated below. They are open to students of both sexes.

I. THE COLLEGE OF GENERAL SCIENCE.

The College of General Science provides three general courses of study—

The Scientific Course,
The Agricultural Course.
The Mechanical Course.

The aim of the Scientific Course is to give a thorough scientific education as a general preparation for all industrial pursuits; and, secondly, as an adequate preparation for special courses of study. The natural and physical sciences are the *leading* branches in the course, requiring about one-third of the student's time for the entire period of four years. It also gives unusual prominence to industrial art.

The Agricultural Course aims to give a good scientific education, and also to impart a thorough and practical knowledge of agriculture and horticulture. It adds to the instruction of the scientific course (Latin and German excepted) a systematic course of instruction and practice in agriculture and horticulture, covering a period of three years. Special attention is given to scientific experiments.

The mechanical course adds to the branches of study in the scientific course (Latin and German excepted) two years' instruction and practice in the use of hand and machine tools for working in wood and iron, and one to two years' training in mechanical drawing—an excellent preparation for a mechanic or machinist, or for a theoretical course in mechanical engineering.

These three general courses of study are so arranged that they all include the same instruction in science, mathematics, industrial drawing, English, and history, and, in the senior year, all give the same privilege of selecting studies. In addition to the branches common to three courses, the scientific course adds Latin or German; the agricultural course, agriculture and horticulture; and the mechanical course, practical mechanics and mechanical drawing.

The addition of two years of Latin or German to the agricultural course, or to the mechanical course, entitles the student to the same degree as the completion of the scientific course—the degree of Bachelor of Science (B. S.). The added Latin or German may be taken in the junior and senior years.

The following outline presents the three courses of study, and shows the relation between them.

THE THREE COURSES OF STUDY IN THE

Studies common to the three Courses.

Freshman Year.			
1st Term	Zoology	Plane Geometry	Industrial Drawing.
2d T'm	Zoology, 6 w. Botany, 6 w..	Solid Geometry	Industrial Drawing.
3d Term	Botany	Solid Geometry, 5 w Higher Algebra, 5 w	Industrial Drawing.

English Composition, one lesson a week.

Sophomore Year.			
1st T'm	Botany, 6 w...... Physiology, 10 w	Higher Algebra......	Rhetoric, 3 less. w. Drawing, 2 less. w.
2d Term	Physics	Trigonome'y, (Pl. & Sp.)	Ancient History......
3d Term	Physics	Surveying	Ancient History......

Rhetoric, one lesson a week in second and third terms.

Junior Year.			
1st Term	Chemistry†	Analyt'l Geometry ...	*Industrial Design** ......
2d Term	Chemistry†	Anal. Geometry, 6 w. Astronomy, 6 w.......	*Industrial Design*........
3d Term	Chemistry†	Astronomy	*Industrial Design*........

English Literature, one lesson a week, and History (Mediæval and Modern), one lesson a week.

Senior Year.				
1st Term	Polit. Economy.	*Diff. Calculus*..	*U. S. Const.*‡, 8 w..	*Industrial Design**
2d Term	Geology	*Inte'l Calculus.*	*Intellectual Science.*	*Industrial Design.*
3d Term	Geology	*Logic*	*Moral Science*	*Industrial Design.*

English Literature, one lesson a week.

†Two hours daily.

‡May be taught in third term.

N. B.—The required branches of study in each course are printed in small caps and the elective branches in *italics*. All the studies of the Senior year are elective, Geology, Political Economy, and English Literature excepted. Senior students are required to pursue daily at least three branches of study.

COLLEGE OF GENERAL SCIENCE.

In Scientific Course.	Agricultural Course.	Mechanical Course.
LATIN OR GERMAN...	AGRICULTURE AND HORTICULTURE*...	PRACTICAL MECHANICS.*
LATIN OR GERMAN...	AGRICULTURE AND HORTICULTURE....	PRACTICAL MECHANICS.
LATIN OR GERMAN...	AGRICULTURE AND HORTICULTURE....	PRACTICAL MECHANICS.
Military Tactics, three exercises a week.		
LATIN OR GERMAN...	AGRICULTURE AND HORTICULTURE*...	PRACTICAL MECHANICS.*
LATIN OR GERMAN...	AGRICULTURE AND HORTICULTURE....	PRACTICAL MECHANICS.
LATIN OR GERMAN...	AGRICULTURE AND HORTICULTURE....	PRACTICAL MECHANICS.
Military Tactics, three exercises a week.		
LATIN OR GERMAN...	AGRICULTURE AND HORTICULTURE*...	MECHANICAL DRAWING.*
LATIN OR GERMAN...	AGRICULTURE AND HORTICULTURE....	MECHANICAL DRAWING.
LATIN OR GERMAN...	AGRICULTURE AND HORTICULTURE....	MECHANICAL DRAWING.
Military Tactics, three exercises a week.		
Latin or German......	_Chemistry*... Physics..... Nat. History*..._	_Mechanical Drawing.*_
Latin or German......	_Chemistry..... Physics..... Nat. History....._	_Mechanical Drawing._
Latin or German......	_Chemistry..... Physics..... Nat. History....._	_Mechanical Drawing._
Military Tactics, three exercises a week.		

*For courses of instruction and practice, see Special Schools, pp. 21–29.

Students in the Scientific Course are permitted to take a two-year course, one-hour daily, in Industrial Design or Mechanical Drawing, in place of the Latin or the German of the Junior year.

INSTRUCTION.

The instruction in Zoölogy aims to give the pupil a general knowledge of the structure, habits, modes of growth, etc., of common animals—the lower animals receiving due attention. The pupil is taught how to collect objects and how to study them, and, having thus learned the leading features of a few groups, he is prepared to take a complete view of systematic zoölogy. Special care is taken to give the pupil some knowledge of the material classified before he is taught classification.

The instruction in Botany in the Freshman and Sophomore years includes descriptive botany; physiological botany, including the method of growth, the food, the circulatory system, and the secretions of plants; and structural botany, the tissues of plants being studied by means of the microscope. There is field and herbarium work throughout the course, and applications of the science to agriculture and horticulture receive special attention.

The instruction in Physiology is given by lectures, with illustrations. Physiological microscopy and histology receive special attention; also, anatomy and the general principles of hygiene.

The course in Physics, in the Sophomore year, includes the elements of mechanics, hydrostatics, pneumatics and acoustics, the first term; and chemical physics, including heat, light, statical and galvanic electricity, the second term. The course in the Senior year includes more advanced instruction in heat, light, sound and electricity, with laboratory practice.

The course in Chemistry in the Junior year includes theoretical and experimental chemistry, and the elements of synthetical chemistry, analytical chemistry (qualitative analysis), and crystallography. The instruction includes lectures and recitations (5 hours a week), and laboratory practice (5 hours a week). Students use the balance and apply the principles of stoichiometry from the first. Definite quantities of substances are used and the product of each reaction weighed or measured, and the *actual* quantities thereof compared with the theoretical. Reports of all work done are made out on blanks, provided for the use of students.

The course in Geology embraces the principles of the science, with its history and terminology, dynamical geology, and paleontology. There is work in the cabinets during the second term.

The course in Mathematics includes branches taught in the best colleges, but more than the usual time is given to the branches below the Calculus.

The instruction in the English language is made as practical and comprehensive as possible. The course in the Freshman year is chiefly devoted to English composition—to actual practice in the use of the language, orally and in writing. The course in the Sophomore year is devoted to Rhetoric, with a critical analysis of the works of several authors.

The instruction in English Literature aims to interest and direct the student in the reading of the best works of one or more of the leading authors of each great epoch. It is believed that such a course is much more valuable than the memorizing of a catalogue of authors, with glances at specimens of their style.

The instruction in History after the Sophomore year, is designed to be the basis of a course of historical reading, extending through the Junior year. The weekly lesson includes a review of the student's reading, with a general summary and subordination of leading events. It is hoped that this course not only imparts some knowledge of history, but, what is better, that it creates a taste for historical reading.

The instruction in Drawing, in the Freshman year, first term, includes free-hand outline drawing from round geometrical models, as cylinders, cones, vases, wheels, crockeryware, and such common objects as illustrate the circle seen obliquely; also the drawing of cubes, triangular and hexagonal prisms, crosses, skeleton cubes, etc. The instrumental work includes geometrical drawing, and parallel, angular, and oblique perspective.

The second term includes the free-hand outline drawing of the rectangular geometrical solids, above enumerated, *in groups*, and the application of the same to the drawing of irregular objects, as chairs, tables, desks, sofas, and buildings. The instrumental work includes the elementary principles of orthographic projection and the development of surfaces.

The third term includes the making of drawings, shaded with the stump, from the round and rectangular geometrical solids; also isometric projection.

The first term of the Sophomore year includes additional practice in shading, and model and object drawing from dictation.

The students in the Scientific Course are required to study Latin or German three years, and the language selected may be studied through the Senior year.

The course in Latin, in the Freshman year, includes the grammar, the reader, a few chapters of Cæsar, and prose composition; in the Sophomore year, three books of Cæsar, five orations of Cicero, and prose composition; in the Junior year, five books of Virgil two terms, and De Senectute one term; in the Senior year, Horace one term, Tacitus one term, and Livy one term.

The course in German includes, in the Freshman year, Ahn's Practical Course, Ahn's First Reader (Henn), and composition and conversation; in the Sophomore year, Ahn's German Grammar, Ahn's Second Reader (Henn), composition and conversation; in the Junior year, Schiller's William Tell and Mary Stuart, Goethe's Egmont, composition and conversation; in the Senior year, a scientific work in German, Goethe's Faust, history of German literature and language (by lectures), and composition and conversation.

The instruction and practice in Agriculture and Horticulture, Practical Mechanics, Industrial Design, and Mechanical Drawing are fully described in the detailed courses for the Special Schools, pp. 21–26.

CONDITIONS OF ADMISSION.

Applicants for admission to the College of General Science must be over sixteen years of age and of good character. Those possessing more than common physical health and strength, with high attainments in preparatory studies, may be admitted at an earlier age.

Applicants for admission to the Freshman class must pass a satisfactory examination in the common branches, and also in Elementary Algebra (including quadratic equations), the History of the United States, Physical Geography, and Physiology. An applicant's knowledge of the common branches must be sufficient to entitle him to a teacher's certificate of good grade. Applicants for admission to higher classes must pass an examination in the lower studies. Applicants who have completed their course of preparation in High Schools which hold the certificate of the State Board of Education, will be admitted without examination.

The entrance examinations are held in June and September of each year—in 1880, June 8 and 9, and September 7 and 8. Applicants may appear at either examination, but, when practicable, it is best to apply for admission in June.

DEGREES.

The degree of Bachelor of Science (B. S.) will be conferred on students who complete the Scientific course, and on those who complete the Agricultural course or the Mechanical course, with two years of Latin or German. See page 13.

The degree of Master of Science (M. S.) will be conferred on persons holding the degrees of B. S., who, having devoted at least three years to the advanced study of science, pass an examination on the same and submit a thesis.

The degree of Analytical Chemist (A. C.) will be conferred on students who complete the course in Chemistry.

A diploma will be granted to students who complete the course in any one of the Special Schools.

Candidates for a degree, or for a diploma, may present themselves at the annual examination before commencement. Application should be made at least three months before the examination. A residence at the University is not required.

II. SPECIAL SCHOOLS.

The following Special Schools have been organized :

1. School of Agriculture and Horticulture.
2. School of Mechanics.
3. School of Industrial Art.
4. School of Chemistry.
5. School of Natural History.

The schools of Agriculture and Horticulture, Mechanics, and Industrial Art are open to all persons who meet the conditions prescribed for admission to the College of General Science. Applicants who wish to devote full time to a special course in one or two of these schools, must have the requisite knowledge of preparatory branches.

The schools of Chemistry and Natural History are open to students who have completed the first two years of the College course.

Graduates from other institutions, who have received the degree of Bachelor of Science or Bachelor of Arts, will be admitted to any one of the Special Schools without examination. Graduates will be able to complete the course in any one of the Special Schools in two years.

Students who, for good reasons, may not desire to take the full course in any Special School, will be permitted to take a shorter course, provided they are able to enter the regular classes.

The statements and schedules below are intended to give a general idea of the courses of instruction and practice in the Special Schools.

I. SCHOOL OF AGRICULTURE AND HORTICULTURE.

This school was organized in September, 1879, and has completed its first year's work. The present adopted course of study and practice is as follows:

FIRST YEAR.

First Term.—Lectures on stock—breeds of horses, cattle, sheep and swine, their history, development and value—ten weeks; dairying, three weeks; farm experiments, three weeks.

Second Term.—Lectures on stock-breeding, eight weeks; veterinary obstetrics, four weeks.

Third Term.—Veterinary obstetrics, four weeks; entomology, six weeks.

SECOND YEAR.

First Term.—Horticulture, floriculture, and green-house management, sixteen weeks.

Second Term.—Diseases of animals, twelve weeks.

Third Term.—Market gardening, seven weeks; drainage, three weeks.

THIRD YEAR.

First Term.—Landscape gardening, eight weeks; history of agriculture, its development, etc., eight weeks.

Second Term.—Rotation of crops, farm management and economy, etc., six weeks; meteorology, six weeks.

Third Term.—Agricultural chemistry, ten weeks.

The agricultural students are required to labor two hours a day during the first and third terms. Those who are cadets are excused from three hours' work each week, to attend the military drills. In the second, or winter term, an abbreviated course in practical mechanics is taken.

The labor is chiefly done on the campus, in the nursery and orchard, in the green-house and in the experimental field, and the students thus receive practical training in the care of lawns, hedges and ornamental trees, orchards and vineyards, and in the cultivation of small fruits, garden products, cereals, grasses, etc.

The reading room of the University is furnished with such standard papers as the Agricultural Gazette, London, Gardener's Monthly, National Live-Stock Journal, American Agriculturist, and Poultry World, besides eight others equally as good, but less devoted to specialties.

The library contains bound volumes of several good journals for years past, and the following works of reference, with many others: Chauveau's Anatomy (Comparative), Allen's American Cattle, History of Short-Horn Cattle, Arnold's American Dairying, The Ayrshire Cow, French's Farm Drainage, Waring's Elements of Agriculture and Downing's Fruit and Fruit Trees of America, Warder's Pomology, Kemp's Landscape Gardening, Henderson's Works on Gardening, Barry's Fruit Garden, Warder's Hedges and Evergreens, several volumes of the Royal Agricultural Society's Reports, and those of the Highland Society, of Scotland.

II. SCHOOL OF MECHANICS.

The course of instruction and training in this school is based upon the plan designed at the Imperial Technical School of Moscow, Russia, and recently introduced into several American schools of technology. It teaches the student the use of typical hand and machine tools for working in iron and wood, and the elementary principles which underlie all the mechanical trades. It has proved a most efficient substitute for the apprenticeship system, which is fast disappearing. Students taking the course are required to devote two hours each day in work at bench, forge, or machine.

The course is as follows:

FIRST YEAR.

First Term.—Bench work in wood, ten weeks; wood turning, six weeks.

The work will include the construction of models, illustrating principles and their combinations—a mortice with a tenon to fit being a good example. Wood-turning will include the making of small ornamental articles, each presenting some new feature. Saw-filing and the sharpening and keeping in order of all wood-working tools will receive special attention.

Second Term.—Pattern making, bringing into practice the knowledge and skill acquired in bench work and wood turning.

The course will make the student familiar with the construction of patterns for molding. Castings from some of the patterns made will be used in the bench and machine courses which follow.

Third Term.—Bench work in iron, including filing, clipping and sawing.

The course will teach the student to file a true surface, to fit accurately one piece of iron within another entirely by hand, processes which require a dexterity not possessed by many old mechanics. The training will make the student efficient in handling the file and the chisel, and squaring and fitting all kinds of work.

SECOND YEAR.

First Term.—Forge work, beginning with simple operations in drawing and upsetting, and gradually progressing until the student is able to make any forging of iron, ordinarily required in actual work. The steel work is carried forward through the different processes of welding and forming. Tools of many kinds are made and tempered until the student learns the temper required by any tool and the way to obtain it.

Second and Third Terms.—Forge work continued four weeks, and machine work eighteen weeks.

The course in machine work includes the construction of parts of machines, and it thus avoids the large amount of repetition involved in the construction of entire machines. The parts constructed bring into practice the different adjuncts of the machine, as the center rest, planer centers, boring bar, screw cutting, etc. The operation of the entire machine and the function of each part constructed is made clear by blackboard drawings and explanations, and the examination of machines available for the purpose.

The mechanics shop is adequately fitted for the above courses (see page 39 for particulars), and the University library contains valuable reference books and journals, including the Encyclopedia of Applied Mechanics (3 vols.), Rankin's Mechanical Text-book, Rose's Practical Machinist, Clark's Manual of Rules, Tables and Data, Northcott's Lathes and Turning, Champion's Mechanical Engineering and Workshop Machinery, Van Buren's Strength of Parts of Steam Machinery, Van Nostrand's Steam Engine, Propellers, etc., Clark's Practical Millwright, the "Scientific American," "Scientific American Supplement," and about as many other works of like value.

III. SCHOOL OF INDUSTRIAL ART.

The instruction in this school includes two courses, as follows:

I. INDUSTRIAL DESIGN.

FIRST YEAR.

Free-hand and instrumental drawing, in addition to the course prescribed for the Academy and College classes, will include drawing and shading from casts; shading with different mediums, as crayon, charcoal, sepia, neutral tint, india ink, etc.; botanical analysis of plants and the conventionalization of foliage from nature for purposes of design; historical ornament; harmony and contrast of color.

SECOND YEAR.

The second year will be devoted almost entirely to designing articles of manufacture and their ornamentation, as furniture, iron-work, stone carving, carpets, porcelain, wall paper, prints, oil-cloth, stained glass, etc.; also, to the modeling in clay of various ornamental designs suitable for carving in stone or wood.

Some of the books of reference for this department, in the library, are "Principles of Decorative Design," by Christopher Dresser; Dresser's "Studies in Design;" "Redgrave's Manual of Design;" Spofford's "Art Decoration Applied to Furniture;" Billings' "Power of Form;" Babbitt's "Principles of Light and Color."

II. MECHANICAL DRAWING.

FIRST YEAR.

Same as first year of course in Industrial Design, except that the instrumental drawing will include the drawing of the details of machinery.

SECOND YEAR.

1. Drawings made to scale of engines and other machines, showing plans, elevations, and sections from copy.
2. Drawings of machines, as a lathe, engine, or other machine, from measurements made by students.
3. Drawings made from data given.

4. Original designs for machines, giving plans, elevations, sections, etc.

5. Orthographic projection and projection of shadows will be continued from first year, and, in addition, Descriptive Geometry, development of surfaces, intersections of solids, and stereotomy will be studied.

The principal books of reference in this department are "The Practical Draftsman;" "Appleton's Cyclopœdia of Drawing;" "Watson's Course in Descriptive Geometry;" "Warren's Descriptive Geometry;" "Warren's Machine Construction and Drawing;" "Weisbach's Mechanics and Mechanical Engineering."

IV. SCHOOL OF CHEMISTRY.

FIRST YEAR.

Same as in Junior year of the Scientific course.

SECOND YEAR.

First Term.—Lectures on Qualitative Analysis, five hours a week; laboratory practice, ten hours a week.

Second Term.—Lectures on Qualitative Analysis continued; soils, minerals, and fertilizers; principles of Quantitative Analysis. Instruction, five hours a week; laboratory practice, ten hours a week.

Third Term.—Processes of Quantitative Analysis continued; general review of principles of analysis. Instruction, five hours a week; laboratory practice, ten hours a week.

THIRD YEAR.

The studies of this year are arranged in three divisions, and a student, especially a graduate, should be able to pursue successfully at least two of them. It is expected that students in the third year's course will give from six to eight hours a day to actual work in the laboratory, since it is only by constant practice that celerity and accuracy can be attained.

I. *Mineralogy.*—Descriptive and mathematical crystallography; drawing of crystal forms; use of goniometer; determinative mineralogy, to be taught in the Mineralogical Laboratory.

The Laboratory is provided with reflecting and common goniometers, a full set of crystal models in glass, with colored silk thread axes, and a set of wooden crystal models to illustrate modified forms. It is also provided with a respectable collection of minerals, suitable for illustration of physical properties and for use in chemical analysis.

II. *Metallurgy and Assaying.*—The course will include the assaying of lead, silver and copper ores, the assaying of coins, plate, etc., the analysis of iron and zinc ores, and the methods of manufacture of wrought iron and steel.

Crucible assays and cupellations will be practiced with ores of lead, silver, gold and copper, but with coin and plate the volumetric assay will be chiefly employed. Instruction will also be given in electro-plating and the composition of alloys.

When practicable, excursions will be made to inspect furnaces in operation. Iron furnaces are accessible at Brazil and Knightsville, Bessemer steel works at Chicago, and zinc furnaces at La Salle, Illinois.

N. B. Students in Metallurgy and Assaying are required to take the course in Mineralogy.

III. *Organic Chemistry.*—Lectures, recitations, and laboratory work. Special attention is given to the practical study of fermentation, properties and synthesis of alcohols, coal-tar products, etc. This work will have special reference to technical applications.

The Chemical Laboratory has a well-selected library, relating to all departments of the science. Among the journals taken are "The Chemical News," London, "Chemisches Central-Blatt," Leipzig, and the "American Journal of Chemistry."

V. SCHOOL OF NATURAL HISTORY.

The studies in Natural History are arranged under the divisions of Botany, Zoölogy, and Geology, and students will be permitted to select the branch to which they wish to give special attention.

I. BOTANY.

FIRST YEAR.

First Term.—Structural and Physiological Botany, same as in general course, with the addition of the more recondite facts and principles, including the character and relations of parts of seeds, morphology, facts and methods of fertilization, origin of tissues, relation of plants to animals, species, etc.

Second and Third Terms.—Special Botany, including the study of grasses, sedges, and higher cryptogams, and the laws of plant distribution, with original work.

SECOND YEAR.

First Term.—History of systems of classification.

Second Term.—Economic Botany, including the history of cultivated plants, and vegetable substances used for food and medicine, and in the mechanical, textile, and ornamental arts.

Third Term.—Special work in Cryptogamic Botany and Vegetable Paleontology.

There will be field and herbarium work throughout the entire course. The University has a fine Herbarium and valuable works for reference and study.

II. ZOOLOGY.

FIRST YEAR.

First and Second Terms.—Comparative Zoölogy, and history of classification.

Third Term.—Structural relations of the animal kingdom.

SECOND YEAR.

Special Zoology.—Collections, and work in Museum.

Students in Zoölogy, in this second year's course, will usually have some specialty to which they will devote themselves. Opportunity for special study will be afforded in the collection of specimens in this department, and in the student's own field-work, which will be an important element in his progress. The University is provided with a first-class microscope and other means of histological study.

III. GEOLOGY.

FIRST YEAR.

Same as in Senior year of Scientific course, but with more original work in field and cabinet.

SECOND YEAR.

First Term.—Economic Geology—the materials in the earth's crust useful to man, their history and methods of discovery.

Second Term.—Stratigraphy, and stratigraphical paleontology; methods of determining strata from their location, arrangement, and composition, and the use and value of animal and vegetable remains in determining classification of strata.

Third Term.—Practical Geology, the applications of the science in public and private surveys; special paleontology.

There will be work in field and cabinet throughout the course.

III. THE UNIVERSITY ACADEMY.

The Academy has the two-fold object of preparing students for admission to the College of General Science, and of providing thorough review instruction in the common branches and elementary instruction in a few higher branches, for those who can not take a more extended course.

The course for the first year provides a thorough review of the common English branches, with elementary instruction in Drawing and Physiology. The aim is to supplement the common school by imparting a more thorough knowledge of these branches than is usually given in country districts.

The second year's course includes the elements of higher branches, with more advanced and practical work in English, including analysis and composition.

The instruction in Drawing includes free-hand outline drawing from copy, dictation, and memory, and the elementary principles of model and object drawing. The course can be completed in one year, two lessons per week.

In all the work done in the Academy, the students are required to be thorough and practical. They illustrate Descriptive and Physical Geography by maps, diagrams, charts, profiles, etc.; Physiology, by suitable designs; and the drills in reading are supplemented by the study of American authors. Recapitulations, analyses, and critical discussions are required in History and English.

Special pains is taken to make the work of the review classes in the summer term practical and suggestive. Much information is given by oral instruction, the use of the microscope, dissections, views with the scientific lantern, etc. An excellent opportunity is thus afforded teachers and others to review the legal branches.

The regular course of study is as follows:

COURSE OF STUDY IN THE ACADEMY.

FIRST YEAR.

First Term	Arithmetic	Geography	English Grammar	Reading and Spelling.
Second Term	Arithmetic	Geography	English Grammar	Reading and Spelling.
Third Term	Arithmetic	Physiology	English Grammar	Reading and Spelling.

Drawing, two lessons a week; Penmanship, two lessons; and Rhetorical Exercises, one.

SECOND YEAR.

First Term	Elementary Algebra	Physical Geography	English	Book-keeping.*
Second Term	Elementary Algebra	United States History	English	Book-keeping.*
Third Term	Elementary Algebra	United States History	English	Reviews.

Drawing, two lessons a week; Penmanship, two lessons; and Rhetorical Exercises, one.

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*Book-keeping is elective. Second-year students, who have satisfactorily completed the first year's course in drawing and penmanship, are permitted to take book-keeping in the place of these branches.

Second-year students, who do not intend to enter the College, will be permitted to take German.

Students who expect to attend the Academy but one or two terms, and those who, for other good reasons, may not wish to take the regular course, will be permitted to pursue selected studies, provided they are prepared to recite in the classes already organized. *Special classes can not be formed.* As a condition of selecting second-year studies, students must pass an examination in the corresponding study or studies of the first year. Students once admitted to a class can not leave it, except by permission of the Academy Faculty.

Applicants for admission to the University Academy should be at least fifteen years of age, but those of more than usual physical maturity may be admitted at an earlier age. Applicants for the first year's course are admitted without examination, if their knowledge of the common English branches is sufficient to enable them to make a thorough review of these branches and pass an examination *in one year*. To this end they should be able to read and spell and write well, and they should have a fair knowledge of Arithmetic, Geography, and English Grammar, as taught in the common schools.

Applicants for the second year's course are examined in the common branches, and also in Physiology or History.

Applicants from graded schools in cities and towns are required to present a certificate of good standing in school, both in scholarship and deportment.

This Institution is not designed to be a reformatory, and applicants who are known to have bad habits, will not be admitted. The admission of such persons might soon result in their suspension.

The University Academy is in charge of first-class teachers, and is provided with commodious rooms and other appliances necessary for thorough and practical instruction.

ADVANTAGES.

Purdue University is located about one mile west of the city of LaFayette, and less than half a mile from the village of Chauncey. The grounds are over one hundred feet above high-water mark in the Wabash river, and the buildings command a fine view of the city, valley, and surrounding country. LaFayette is situated at the intersection of four railroad lines, extending respectively from Cincinnati and Indianapolis to Chicago, from St. Louis to Toledo, from Louisville, Ky., to Michigan City, and from Bloomington, Ill., to Fremont, Ohio. These roads give the University direct railroad connection with all parts of the State.

GROUNDS.

The campus and gardens contain twenty acres, bounded on the south and east by wide avenues bordered with walks and trees, and on the north and west by " wind-breaks " of pines and hemlocks. The grounds are laid out with convenient drives and walks, bordered with hedges and choice trees, and the lawns are ornamented with shrubbery and flowers. A practical horticulturist has charge of the grounds.

BUILDINGS.

The main college building, " University Hall," has two fronts, each 136 feet in length, and is divided by two hallways into three sections. The central portion is five stories high, including the basement and Mansard stories, and the two ends are each four stories high, with an attic. The ends of the two hall transepts are surmounted, three by a turret and one by a tower or belfry. The basement is stone and the upper stories brick, with stone trimmings. The building contains a chapel, or assembly hall, 56 by 41 feet, with galleries on three sides; an academy hall, 56 by 41 feet; two society halls, each 51 by 29 feet; a library room, 41 by 27 feet; three cabinet rooms, each 41 by 27 feet; eight recitation rooms, each 29 by 25 feet; two well lighted basement rooms, each 29 by 25 feet; and two suites of lunch and toilet rooms.

The other buildings in use are the Boarding House, the Young Men's Dormitory, the Laboratory, the Military Hall, the Boiler and Gas House, and the Peirce Conservatory.

The Boarding House contains a spacious dining room, a kitchen, laundry, etc., and rooms for family and servants; also two suites of rooms for members of the Faculty, fourteen rooms for the occupancy of young ladies, and a complete suite of rooms for the School of Industrial Art, including a large lecture hall, four smaller rooms for shading, modeling in clay, office and library, etc., and two basement rooms for special work.

The Dormitory is four stories high. The second, third and fourth stories contain each eight suites of rooms, each suite consisting of a study room and two bed rooms with closets, and the first story contains four suites of rooms, each consisting of a study room and one bed room, and six rooms, each about the size of a study room. If each student is allowed a bed-room, the Dormitory will accommodate about sixty students. The building is divided into two sections, and each section has a bath-room on each floor.

The first story of the Laboratory contains the Chemical Laboratory, with a complete suite of rooms; the second story affords ample accommodations for the department of Physics; and the basement contains a large mechanics shop, two forge rooms, a lumber room, and a room for assaying, smelting, etc.

The Boiler and Gas House contains four large steam boilers for heating, and two gas retorts for lighting the entire group of buildings. It also contains the engines which are used for pumping water and for supplying needed power for driving the machinery in the mechanics shop.

The Military Hall contains a spacious drill-room, and smaller rooms for storing arms, etc. The drill-room is also well adapted for use as a gymnasium.

The Green-House, built in 1879, is a neat structure, about fifty by twenty feet, with addition for boiler and fuel, and for potting purposes. It was built from a donation by M. L. Peirce, Esq., the Treasurer of the University, and is called the "Peirce Conservatory."

The engineer's house, gas refinery, stable, etc., are located on the west side of the grounds. The farm house, barn, granary, and other farm buildings are located on the one hundred acres situated south of the campus, and on the opposite side of the street.

CHEMICAL AND PHYSICAL APPARATUS.

The University has a good supply of chemical apparatus and a well-equipped Laboratory. Each student is furnished with a full set of apparatus and the necessary chemicals for all his work and experiments, and he is held responsible for their proper use. He is charged with actual breakage and damage. For illustrating the first principles of chemistry, a complete set of Hoffman's apparatus is provided. A fine lantern for projection, with electric light, is used to throw diagrams and formulas on the screen.

The physical apparatus has been selected with more special reference to experimental lectures, and is fullest in the departments of electricity and magneto-electricity. It includes a full set of telegraphic apparatus, two frictional electric machines, batteries of Leyden jars, etc. The celebrated Gramme machine furnishes an inexhaustible source of electricity for experimental and illuminating purposes. In the department of heat there is a Melloni's apparatus, with all its accessories, and in that of sound a Koenig's Phonautograph, a sonometer, and a set of organ pipes.

CABINETS AND MUSEUM.

The Geological Cabinet embraces (1) a valuable collection of minerals, including a fine suite of the ores of gold, silver and lead, with associated minerals, from California and Colorado; (2) a good working collection of fossils, illustrating the silurian and carboniferous systems, including a valuable collection of crinoids, purchased of Prof. D. A. Bassett, of Crawfordsville, and representing most of the species of that famous locality; (3) an interesting collection in Anthropology, including numerous stone and flint implements, illustrating the art and customs of the pre-historic inhabitants of this country; (4) a good collection of fossil ferns, from the coal measures, specimens of fossil vertebrates, and numerous other specimens. A large glass-front walnut case, containing a collection of minerals, has been contributed by Col. John Levering, of LaFayette. The collection is to be increased, and will be known as the "Levering Collection."

The Zoölogical Museum embraces (1) fine collections of specimens in Entomology, including fourteen cases, collected chiefly in this vicinity, all neatly mounted and correctly named, and the "Scheuch Collection," consisting of twenty-seven cases of insects, mostly beetles, including seven thousand specimens and over two thousand species, collected chiefly in Southern Europe, and elegantly mounted, correctly named and labeled—the generous donation of Fred. Scheuch, Esq., of LaFayette, now U. S. Consul at Barcelona, Spain; (2) a good collection in Conchology, consisting of marine, land, and fresh-water shells, the latter chiefly of this vicinity; (3) a collection in Ornithology, embracing nearly two hundred birds of Indiana, several quite rare, all well mounted, about one hundred skins, mounted for study and correctly named, and bones, skeletons, crania, etc., for illustration; (4) a collection of skeletons of mammals, several being articulated; (5) a series of the marine invertebrates, collected by the U. S. Fish Commission on the

Atlantic coast, and containing 144 species—a gift from the Smithsonian Institution, Washington, D. C.; (6) a miscellaneous collection preserved in alcohol, consisting of fishes, serpents, and other reptiles; and (7) numerous sections of brain, nerves, bones, glands, and animalcula, etc., prepared as permanent specimens for use with the microscope.

The Herbarium contains over two thousand specimens of mounted plants, and the collection is constantly increased by field work and by exchanges. It is specially full in the grasses and sedges of this State and the ferns of the United States, the sets of each being nearly complete. The means of illustration in Botany also include a set of native wood from this and adjoining counties, seeds, sections, and moist preparations; also mounted specimens for the microscope, to illustrate elementary structure and cryptogamic botany. The botanical collection has recently been increased by a valuable donation of about twelve hundred species of plants, many of them foreign, by G. W. Clinton, Esq., of Buffalo, N. Y., a collector and botanist of wide reputation.

The department of Natural History is supplied with Beck's Large Best Monocular Microscope, with concentric rotating stage and iris diaphragm, and a full set of accessories; Beck's Improved Dissecting Microscope, with two single lenses and two Coddingtons (¾ and ½ inch focus); a case of dissecting instruments, and mounting material.

INDUSTRIAL ART.

This department is supplied with (1) flat copies for outline drawing; (2) flat copies in light and shade for crayon work; (3) colored copies, for water-color painting; (4) flat copies for carpentry, architectural, and machine drawing; (5) charts to illustrate the botanical analysis of plants for purposes of design; (6) charts to illustrate analysis of historical ornament; (7) charts to illustrate harmony and contrast of color; (8) a great variety of geometrical solids, vases, and casts for model drawing; (9) samples of prints and other textile fabrics, wall paper, carpets, etc., to illustrate the application of design to manufactures; (10) appliances for modeling in clay; (11) an excellent selection of casts from ancient and modern sculpture, recently purchased, including busts of the Venus de Milo, Apollo de Belvidere, Diana, Psyche, Paris, Ajax, Michael Angelo, Raphael, and medium sized statues of Minerva, Psyche, Flora, and M. Angelo's Moses; (12) twelve very fine photographs of western scenery, taken under the supervision of the U. S. War Department, presented by Mr. James R. Pigman, of Lafayette. The Library also contains a number of very valuable books of reference and journals for the use of art students.

AGRICULTURE AND HORTICULTURE.

The means of illustration and practice in this department include the model farm, containing about one hundred and fifty acres, and well stocked with Short-horn and Jersey cattle, Clydesdale and Norman horses, Essex and Berkshire swine, the "Experimental Station" (a field of ten acres), a full set of meteorological instruments, purchased through the United States Signal Service Office, the campus, nursery and orchards, and the Peirce Conservatory, already well filled with choice plants.

MECHANICS.

The School of Mechanics is well equipped with tools and machines for doing a large variety of work in wood and iron, and both tools and machines are of improved pattern and first-class in every respect. The machinery is driven by steam power from the engine house. The shop contains five benches for wood working, with sets of carpenter tools, a large power turning lathe, scroll saw, and other tools for a large scope of work. Additional tools and machinery will be added before the beginning of next year.

The machines, tools, and fixtures for iron work include,

(1) benches fitted with Parker vises, sets of files, chisels, hammers, hardened steel squares, gauges, calipers and other tools needed for all kinds of bench work in iron; (2) forges of improved pattern, with air blast, furnished by a Sturdevant blower, driven by steam power, and all the common smithing tools, such as anvils, hammers, tongs, chisels, etc.; (3) an engine or machine lathe, a machine planer, of the best pattern, a vertical drill press, an emery grinder and grind-stone, with a supply of small tools—chucks, drills, taps, and dies, and lathe and planer tools, etc.

LIBRARY.

The Library occupies a commodious and well lighted room, appropriately fitted and furnished. It contains a valuable collection of books of reference, in each department, and a goodly number of miscellaneous works, many of standard value. The number of volumes now on the shelves, not including pamphlets and unbound works, is about two thousand. Several hundred volumes have been added the present year. The reading room is well supplied with scientific and art journals, literary periodicals, and daily and weekly papers. The journals and periodicals taken include Nature, Chemical News, Chemisches Centralblatt, American Journal of Science, American Naturalist, Scientific American and Supplement, Botanical Gazette, Popular Science Monthly, Engineering and Mining Journal, Gardener's Monthly, Country Gentleman, American Agriculturist, National Live Stock Journal, Agricultural Gazette, Indiana Farmer, Land and Home, Poultry World, Kentucky Live Stock Record, Art Journal, The Workshop, Cassel's Magazine of Art, Cassel's Family Magazine, Ueber Land und Meer, Harper's Monthly, Harper's Weekly, Scribner's Monthly, Littell's Living Age, North American Review, Contemporary Review, The Athenæum, The Nation, and the London Weekly Times.

The works donated to the Library the present year include Walker's Statistical Atlas of the United States and four volumes of Senate Journals, by Senator McDonald; several volumes of public documents, by Hon. G. S. Orth, M. C.; seventy-five unbound volumes of magazines and other periodicals, including The Galaxy, Lippincott's Magazine, Every Saturday, Appleton's Journal, the Ladies' Repository, and several books, by President White; seventeen complete volumes (unbound) of the Scientific American, by Mrs. Morley; several volumes of German Agricultural documents, by Prof. Weyher, and the Devon Herd-Book, by Prof. Ingersoll.

MILITARY TACTICS.

Instruction in Military Tactics is provided for by the law of Congress endowing this Institution, and for several years such instruction has been given. The joining of the company is *voluntary*, but, when a student becomes a cadet, he is held to regular attendance and military discipline during the period of his enlistment, which may be for a term or for a year. For unexcused absence or misconduct, a cadet may, at the Captain's discretion, be suspended or expelled from the company. The company is supplied with the best breech-loading rifles, with complete accoutrements. Upton's Tactics is used as a text-book. A cap and blouse may be provided for about $2.00. The drill is believed to be an excellent physical exercise.

The register of the company the present year is as follows:

OFFICERS—Prof. H. W. Wiley, Captain; Lewis Owens, First Lieutenant; W. B. Sinclair, Second Lieutenant; W. E. White, First Sergeant; H. A. Beck, Second Sergeant; L. Knefler, Third Sergeant; J. N. Bartholomew, First Corporal; J. McCord, Second Corporal; S. A. D. S. Lyons, Third Corporal; James Shaw, Fourth Corporal; J. P. English, Fifth Corporal.

PRIVATES—J. M. Burrow, H. E. Bunnell, F. L. Clark, J. W. Dunn, G. F. Felts, A. R. Gilmore, P. M. Groundt,

W. B. Gray, C. L. Harris, C. Henderson, H. C. Huffstetter, J. E. Johnson, C. A. Marsteller, F. B. McConnell, A. E. McEneney, R. R. Moffitt, P. J. Mutz, D. Neff, C. M. Parks, L. R. Raub, F. Rittenhouse, O. S. Roberts, A. Switzer, W. T. Throckmorton, C. W. Travis, E. S. Walker, J. M. Waugh, T. P. Weir, J. D. Williams, E. G. Wilson.

LITERARY SOCIETIES.

A regulation of the University forbids the organization of any society by the students, except by the consent of the Faculty, and the public exercises of the society organized are subject, in time, place and character, to the approval of the Faculty. Two literary societies have been organized—the Irving Literary Society and the Philalethean Society, the former for young men and the latter for young women. Their exercises, consisting principally of essays, declamations, debates, and orations, are an efficient means of improvement in writing and speaking. Each society has a fine hall.

EXPENSES, BOARDING, ETC.

EXPENSES.

The expenses incurred in attending Purdue University are very low. It is believed that few institutions afford equal advantages, at as low a cost.

The charges for the year 1880–81 will be as follows:

Entrance fee in College, per year	$5 00
Entrance fee in Academy, per term, $2.00; per year	5 00
Incidental fee in all departments, per term	3 00
Chemicals and gas for general course in Chemistry, per term	5 00
Matriculation fee in Special Schools	10 00
Chemicals and gas for special course in Chemistry, per term	5 00
Table board, per week (at Boarding House)	2 50
Room-rent, heat and light, per week	50
Washing, per dozen, (at Boarding House)	75

From the above it is seen that a student's expenses for thirty-eight weeks in the Academy or College will be as follows:

Entrance and incidental fees	$14 00
Table board	95 00
Room, heat, and light	19 00
Washing, about	12 50
Total for the year	$140 50

All bills must be paid *in advance,* entrance and incidental fees at the beginning of the term or year, and room-rent at the beginning of each term. A pro rata part of all fees paid in advance will be refunded to students who are withdrawn on account of sickness, or for other good reason.

The Lake Erie & Western R. R. sells students round trip vacation tickets at one and one-fifth fares. It is hoped that the other roads, centering at LaFayette, may make a like reduction.

YOUNG MEN'S DORMITORY.

The young men occupying rooms in the Dormitory, are required to keep them in good order and to observe all other rules governing their occupancy. A failure to observe such rules, or other disorderly conduct, forfeits a student's right to a room. The occupants of rooms are held responsible for all injury to the same or to furniture and fixtures therein. No firearms are permitted to be kept in rooms. Each suite of rooms is furnished with bedsteads, washstands and sets, and tables and chairs. Mattresses and bedding, towels, soap, mirrors, brooms, etc., are furnished by students. Young men occupying rooms may procure table-board at the Boarding House or elsewhere, as they may prefer, but self-boarding in the Dormitory is not allowed.

BOARDING HOUSE.

The rooms in the Boarding House for young ladies are neatly carpeted and are furnished with bedsteads and mattresses, washstands and sets, tables and chairs. The young ladies furnish bedding, towels, mirrors, etc. The young ladies who occupy rooms in the Boarding House next year, will be under the personal supervision of the lady member of the Faculty.

PRIVATE BOARDING.

Students who may not wish to board in the University, can obtain board in private families in Chauncey, at reasonable rates. Good accommodations for self-boarding or for club-boarding can also be secured in Chauncey, and the cost of board, including room, may thus be reduced to about $2 per week. A good sidewalk extends from the University to the village.

STUDENTS APPOINTED BY COUNTY COMMISSIONERS.

A law passed March 12, 1877, gives the Board of Commissioners of each county of Indiana the authority to appoint two students to Purdue University, and the students thus appointed are exempt from the payment of entrance and incidental fees and the charges for room, heat, and light. The reduction, thus provided for, amounts to $33 a year, or about one-fifth of all the necessary expenses of a student. Sixty-eight of the students in attendance the present year were appointed. See page 51.

WORK.

The farm is cultivated with improved implements, and hence there is but little work which can be done by students. The teams must be handled and cared for by regular hands. About the only assistance which students can render, is in harvesting the fall crops and in the care of stock, and this work, as well as that needed on the University grounds, in the nursery, orchard, and green-house, and in the experimental field, is done by *the students taking the Agricultural course.* The amount of other work to be done by students is very limited, and no one should come to the University depending on work, if he has not made successful application for it.

APPLICATIONS.

Application for admission to any department of the University should be made to the President, and prior to the opening of a year or term, when this is practicable. In making application by letter, students are requested to give their age, the studies which they have pursued, and a general idea of their attainments. A catalogue will be sent to any address on application with directions. Address, President of Purdue University, LaFayette, Indiana.

CALENDAR FOR 1880--81.

FIRST TERM.

First term, sixteen weeks, begins Thursday, September 9, 1880, and ends Thursday, December 23, 1880.

SECOND TERM.

Second term, twelve weeks, begins Tuesday, January 4, 1881, and ends Friday, March 25, 1881.

THIRD TERM.

Third term, ten weeks, begins Monday, April 4, 1881, and ends Thursday, June 9, 1881.

EXAMINATIONS.

Examinations of applicants for admission to the college classes of 1880–81, will be held June 8 and 9, and September 7 and 8, 1880.

COMMENCEMENT THURSDAY, JUNE 9, 1881.

RULES AND REGULATIONS.

GENERAL.

1. Students who have not been regularly admitted by the Faculty or the President, shall not be received into any class or department of the University by any professor or instructor, and no professor or instructor shall use the rooms, appliances or materials, belonging to the University, to give instruction to private students, except by permission of the Board of Trustees.

2. All fees and other charges, except for breakage in the Laboratory, must be paid *in advance*; entrance and incidental fees at the beginning of each term or year, or at the time of entrance, and charges for rooms, heat and light at the beginning of each term. A pro rata part of all fees and charges paid in advance will be refunded to students who withdraw on account of sickness, or for other satisfactory reason. The Laboratory charge for breakage must be paid at the close of each term.

3. Students occupying rooms in the Dormitory are required to keep their rooms in good order, and to observe such other rules governing their occupancy as may be prescribed. A failure to observe such rules, or other disorderly conduct, forfeits a student's right to a room. The occupants of rooms are held responsible for all injury to the same, or to the furniture and fixtures therein, except when others who cause the injury, are reported. The keeping or use of fire-arms in the Dormitory is forbidden. Students in the Academy and members of the Freshman class, occupying rooms, are not permitted to visit the city of LaFayette in the evening, except by permission.

4. The frequenting or visiting of saloons, or other places

where intoxicating liquors are sold, is forbidden, and any student who violates this rule, or becomes intoxicated, may be suspended or expelled from the University.

5. No Society is permitted to be organized by the students, except by consent of the Faculty, and the public exercises of the societies thus organized are subject in time, place and character, to the approval of the Faculty. The time fixed for the annual exhibitions or entertainments of the societies now organized is the last week of the second or winter term, the Irving having the choice of evenings in odd years, and the Philalethean in even years; and the time for the annual exhibition of the Junior class is the last week of the first or fall term.

6. No student is permitted to join or be connected as a member, or otherwise, with any so-called Greek or other college secret society; and, as a condition of admission to the University, or promotion therein, each student is required to give a written pledge that he or she will observe this regulation. A violation of this regulation and pledge forfeits the right of any student to class promotion at the end of the year and to an honorable dismissal.

7. The joining of the military company, called the "Purdue Cadets," is voluntary, but when a student thus becomes a cadet, he is held to regular attendance and the discipline of the company during the period of his enlistment, which shall be for the college year. For unexcused absence or disorderly conduct, a cadet may, at the discretion of the Captain, be suspended or expelled from the company.

8. Students who desire to be absent from any recitation, or other exercise, are expected to obtain leave of absence. Students absent without previous permission, can only be excused by the President or the Faculty, and they are permitted to recite but twice in any class before producing a written statement that their absence has been reported to the President. The absence of Academy students must be reported to and excused by the Principal.

CLASSIFICATION OF STUDENTS.

1. Students shall be admitted to the College classes by vote of the College Faculty, and no student shall be admitted to any special school, or to any special or irregular course of study, except on presentation of an entrance certificate, signed by the President.

2. Students admitted to the College are not permitted to take an irregular or elective course in the Freshman or the Sophomore year, but they are required to pursue one of the three regular courses of study, viz: the Scientific Course, or the Agricultural Course, or the Mechanical Course. Applicants wishing to take a special course in one or two Special Schools, will be admitted if they are prepared to do the required work. Regular students are not permitted to take both Latin and German in the Freshman and Sophomore years, or to take any special course in advance of their attainments in the regular course.

3. A student who is pursuing all, or all but one of the lines of study in any one of the prescribed courses for a given year, shall be classed as Freshman, Sophomore, Junior, or Senior, as the case may be. By a "line of study" in this regulation is meant science, mathematics, language, English and history and industrial art, agriculture and horticulture, or mechanics.

4. When a student is pursuing all the studies of his class in any prescribed course, he shall be considered as *regular;* but when he is behind his class in any study or studies to the extent in the aggregate of one year's work in a line of study, he shall be considered *irregular;* provided, that if a student who is behind his class in any study, is in advance of it in other studies of the course, so that his advanced attainments are a full offset to his deficiences, such student shall be considered regular.

5. When a student, classed as regular, is subsequently conditioned to such an extent that the removal of the con-

ditions will, in the judgment of the Faculty, require one-fourth of the student's time for one year, such student shall be considered irregular until such conditions are removed.

6. Students shall be classified in the Annual Register in accordance with their classification at the beginning of the year, or at the time of entrance, if subsequently admitted; provided, that if conditions are met by students, or their classification is changed by the Faculty prior to the third term, such classification shall be used in the Register.

7. Students are not entitled to the degree of Bachelor of Science if their deficiencies or conditions in the Scientific Course, or the Agricultural Course, or the Mechanical Course, exceed, in the aggregate, one year's work in a line of study.

LIBRARY AND READING ROOM.

1. The Library shall be open to members of the Faculty, students, and employes of the University for reading and study, at such hours as the Faculty may prescribe, and, in these hours, conversation or other conduct which may divert attention, or otherwise annoy, shall not be allowed.

2. Any one wishing any book or periodical (dictionaries excepted) must apply to the Librarian for it, and, before leaving the room, the same must be returned to the Librarian, if not regularly drawn.

3. Books not marked "Reference Book," may be drawn from the Library and retained one week, and then may be redrawn for another week, but no book can be kept by one person longer than two weeks.

4. If a book is not returned within the week for which it was drawn, the holder shall be subject to a fine of ten cents; if not returned within two weeks from the time it was drawn, to a fine of twenty-five cents; if not returned within a month, to a fine equal to the price of the book; and, if lost, to a fine fifty per cent more than the cost of replacing it.

5. Reference books, current periodicals, and papers can not be taken from the Library room except by special permission of the President, and then only from the closing of the Library to the first succeeding hour of opening.

6. A repeated violation of any of the foregoing regulations, or other rules, which may from time to time be prescribed, shall forfeit a student's right to the use of the Library for such time as may be designated.

7. It is the duty of the Librarian to enforce the above regulations.

STUDENTS' LAW.

AN ACT authorizing the appointment of students to Purdue University by the Board of Commissioners of each county, and to provide for the admittance of such scholars, and defining their privileges therein.

SECTION 1. *Be it enacted by the General Assembly of the State of Indiana,* That the Board of Commissioners of each county in this State may appoint, in such manner as they may choose, two students or scholars to Purdue University, who shall be entitled to enter, remain, and receive instruction in the same, upon the same conditions, qualifications and regulations prescribed for other applicants for admission to, or scholars in said University: *Provided, however,* That every student admitted to said University by appointment by virtue of this act, shall in no wise be chargeable for room, light; heat, water, tuition, janitor or matriculation fees, and said students shall be entitled in the order of admittance to any room in the University, then vacant and designed for the habitation or occupancy of a student, and such student so admitted, shall have prior right to any such room, subject to the rules of the University, over any student not appointed and admitted as aforesaid.

SEC. 2. That no more than two students at the same time, from any county, shall be entitled to admittance to said University under provisions of this act; but the Board of Commissioners of each county may, from time to time, appoint as aforesaid to any vacancy in their appointments.

SEC. 3. Whereas, an emergency exists for the immediate taking effect of this act, the same shall be in force from and after its passage.

Approved March 12, 1877.

J. D. WILLIAMS,
Governor.

HISTORICAL SKETCH OF PURDUE UNIVERSITY.

Purdue University had its origin in the Act of Congress of July 2, 1862, which "donated public lands to the several States and Territories which may provide Colleges for the benefit of Agriculture and the Mechanic Arts." The national grant was accepted by the State of Indiana, March 6, 1865, and a Board of Trustees, with the corporate name of "The Trustees of the Indiana Agricultural College," was organized for the management of the trust funds. This Board consisted of Governor Morton (*ex-officio* President), Alfred Pollard, of Gibson, Smith Vawter, of Jennings, Henry Taylor, of Tippecanoe, and Lewis Burke, of Wayne. Prior to the first meeting of the Board, held October 20, 1865, Mr. Pollard removed from the State, and Isaac Jenkinson, of Allen, was elected his successor. John J. Hayden, of Marion, was elected Secretary of the Board, and James E. Reeves, of Wayne, Treasurer. Mr. Reeves resigned May 1, 1866, and was succeeded by E. B. Martindale, of Indianapolis. The Board so constituted remained without a change in membership until March 7, 1870.

It was this Board that received the land scrip, amounting to 390,000 acres, and, April 9, 1867, sold it for $212,238.50. By careful and wise management, this endowment fund has been increased to $338,000, the sum of $325,000 being invested in Indiana State bonds, bearing five per cent interest, and $13,000 in United States bonds, bearing six per cent interest. This Board also located the University, as stated below.

The act of 1865 made no provision for the location or the organization of the College. Governor Morton's special message to the General Assembly was followed by a strong rivalry between several places, desiring the College, and the general sessions of 1863, '65, '67 and '69 failed to settle the location. At the special session in 1869, an act was passed (May 6), accepting a donation of $150,000 by John Purdue, on specified conditions; a donation of one hundred acres of land, appurtenant to the institution, by citizens of Chauncey; a donation of $50,000 by Tippecanoe county; and donations by the Trustees of the Battle Ground Institute and by the Trustees of the Battle Ground Institute of the M. E. Church, both made on condition that the College be located at Battle Ground. This act located the institution in Tippecanoe county, at such point as the Trustees might determine before January 1, 1870, gave it the name of Purdue University, and provided for its organization and management. The location of the University was definitely fixed by the Trustees December 22, 1869.

In March, 1870, the Board was partially reorganized. M. L. Peirce, of LaFayette, succeeded Mr. Jenkinson; Rev. Thomas Bowman, of Greencastle, Mr. Vawter; Dr. Joseph L. Tuttle, of Crawfordsville, Mr. Lewis Burke (resigned); and John Purdue became a Trustee by the act of the Legislature. Mr. Peirce was elected both Secretary and Treasurer, succeeding Messrs. Hayden and Martindale (resigned). In November, 1870, Dr. Tuttle and Henry Taylor resigned, and were respectively succeeded by John R. Coffroth and John A. Stein, both of LaFayette. In January, 1871, Mr. Stein was elected Secretary of the Board, and by subsequent re-elections, Mr. Peirce has been continued as Treasurer and Mr. Stein as Secretary.

An act passed January 31, 1871, increased the number of Trustees to nine, including the Governor, *ex-officio* member and President of the Board, and provided that three of the Trustees should be members of the State Board of Agriculture, to be appointed by the Governor on the recommendation of the State Board. The three Trustees appointed under this law were I. D. G. Nelson, of Fort Wayne, John Sutherland, of Laporte, and L. A. Burke, of New Harmony. The Board was constituted as follows: Governor Baker, *ex-officio* President, John A. Stein, Secretary, Martin L. Peirce, Treasurer, John Purdue, John R. Coffroth, I. D. G. Nelson, John Sutherland and L. A. Burke.

This Board, with the changes in its membership hereafter noticed, purchased the present site of the University, planned and constructed the buildings (the main building excepted), and made provision for the opening of the institution.

Governor Hendricks succeeded Governor Baker in 1873. Dr. Bowman resigned in May, 1873, and was succeeded by Judge H. P. Biddle, of Logansport, who resigned in November following, and was succeeded by Col. B. C. Shaw, of Indianapolis, who resigned in October, 1874. Mr. Nelson resigned in 1874, and was succeeded by Austin B. Claypool, of Connersville. Mr. Burke resigned in June, 1874, to accept the position of Farm Superintendent.

THE OPENING OF THE UNIVERSITY.

In 1872 the Board expected to open the University the following year, and Prof. Richard Owen, of the State University, at Bloomington, was elected President (August 13, 1872), and Prof. John S. Hougham was appointed to a professorship. President Owen was to enter on his duties upon receiving a three months' notice, but Professor Hougham entered at once into the service of the Board.

President Owen resigned March 10, 1874, and Sup't A. C. Shortridge, of Indianapolis, was elected his successor June 12, 1874. To comply with the Act of Congress, which required the institution to be opened as early as July, 1874, Professor Hougham took charge of a class March 2, 1874, and gave instruction until June. The University was formally opened September 17, 1874, with the following Faculty: A. C. Shortridge, President; John S. Hougham, Professor of Physics and Industrial Mechanics; W. B. Morgan, Professor of Mathematics and Engineering; John Hussey, Professor of Botany and Horticulture; H. W. Wiley, Professor of Chemistry; and Eli F. Brown, Professor of English Literature and Drawing.

The plan of organization adopted by the Board of Trustees was based on the theory of special education, and the instruction of the University was distributed among the following Special Schools: I. School of Natural Science, including (*a*) Physics and Industrial Mechanics, (*b*) Chemistry, (*c*) Natural History; II. School of Engineering, including (*a*) Civil Engineering, (*b*) Mining Engineering, (*c*) Architecture; III. School of Agriculture, including (*a*) Theoretical and Practical Agriculture, (*b*) Horticulture, (*c*) Veterinary Science; IV. School of Military Science. Detailed courses of study were adopted and announced in Agriculture, Chemistry, Engineering, and Physics and Mechanical Engineering.

The University was conducted on this plan of special education for two years, but there seemed to be little demand for the special courses of instruction provided. The only special students received entered the School of Chemistry, and most of these were in preparatory branches in other studies. Nearly all the students entered the preparatory classes.

At the close of the first year Mrs. Sarah A. Oren was appointed Professor of Botany, and Professor Hussey was transferred to the added chair of Latin and Modern Languages.

An Act passed by the Legislature March 9, 1875, provided for the reorganization of the Board of Trustees. It reduced the number of Trustees to six, two to be nominated by the State Board of Agriculture, one by the State Board of Horticulture, and three to be selected and appointed by the Governor. It also provided that the Secretary and Treasurer should not be members of the Board. The law took effect August 24, 1875, and the Board was reorganized August 31, 1875, as follows:

JOHN R. COFFROTH, President, appointed by the Governor.
MAHLON D. MANSON, appointed by the Governor.
REUBEN WELLS, appointed by the Governor.
JOHN SUTHERLAND, nominated by the State Board of Agriculture.
ROBERT P. HAYNES, nominated by the State Board of Agriculture.
JOSEPH C. RATLIFF, nominated by the State Horticultural Society.

President Shortridge resigned November 5, 1875, to take effect December 31, 1875, and Professor Hougham became Acting President. E. E. White was elected President February 17, 1876, and entered on the duties of the office May 1, 1876.

REORGANIZATION.

At the meeting of the Board of Trustees, held in June, 1876, President White submitted the plan of organization on which the University has since been conducted. The plan was unanimously approved by the Board.

The University was divided into three departments—the University Academy, the College of General Science, and Special Schools—as described above in the Register. The College was first organized with but one course of study, the Scientific Course, so arranged as to be a general preparation not only for all industrial pursuits but for the courses in the Special Schools. In 1879 the College was made to embrace three courses—the Scientific Course, the Agricultural Course, and the Mechanical Course—and the Special School of Agriculture, with its "Experimental Station," and the School of Mechanics, with its workshop, were put into successful operation. It has required four years "to work out" the plan outlined in 1876, and described in preceding pages.

The Faculty, as reorganized in 1876, was constituted as follows: E. E. White, President and Professor of English Literature; H. W. Wiley, Professor of Chemistry and Physics; John Hussey, Professor of the Natural History Sciences; David G. Herron, Professor of Mathematics and Engineering; Edward P. Morris, Instructor in Latin and History; Walter L. Dean, Instructor in Industrial Art; R. F. H. Weyher, Instructor in German; George R. Chase, Principal of the Academy; and Sarah A. Oren, Associate Principal of the Academy.

In 1877 Charles E. Lambert succeeded Prof. Morris; Langdon S. Thompson succeeded Prof. Dean; and Edward E. Smith succeeded Principal Chase. In 1878 Olivia T. Alderman succeeded Mrs. Oren; and in 1879 John A. Maxwell succeeded Prof. Lambert. In 1879 Charles E. Ingersoll was appointed Professor of Agriculture and Horticulture, and Wm. F. M. Goss, Instructor in Mechanics. Miss Lora Miller was appointed Librarian in 1878, and reappointed in 1879.

But few changes have occurred in the Board of Trustees since the reorganization in 1875. Hon. John R. Coffroth resigned December 21, 1877, and was succeeded by John C. Dobelbower, of LaFayette. Gen. M. D. Manson succeeded Judge Coffroth as President of the Board. Gen. Manson resigned January 20, 1879, to enter on the duties of Auditor of State, and Hon. John S. Williams, of LaFayette, was appointed his successor. Mr. Sutherland succeeded Gen. Manson as President of the Board.

The Act of 1865 provided that if Mr. Purdue should cease to be a member of the Board, he should be continued as an Advisory Trustee during his lifetime. His trusteeship expired in 1875, and he then served the University as an Advisory Trustee until his death, which occurred September 12, 1876.

STATE APPROPRIATIONS.

In 1873 the Legislature made an appropriation of $60,000 to Purdue University for the erection of a college building, the purchase of apparatus, the improvement of the grounds, and other purposes—$30,000 to be paid June 1, 1873, and $30,000 June 1, 1874.

In 1875 the Legislature appropriated $10,000 for physical, mechanical, chemical, and engineering apparatus; $4,000 for farm-house and barn; $4,000 for stock, agricultural implements, farming utensils, etc.; and $2,000 for library, etc. One-half of each appropriation was paid in 1875 and one-half in 1876.

In 1877 the Legislature appropriated $5,000 for payment of indebtedness incurred in 1876; $4,500 for allowances to trustees and officers ($1,500 in 1877, $1,500 in 1878, and $1,500 in 1879); $5,000 for apparatus, machinery, cabinets, and fixtures; $2,000 for books, and periodicals; and $3,000 for stock, experiments in agriculture, and improvements of grounds. One-half of each of the last three appropriations was paid in 1877 and one-half in 1878.

In 1879 $4,000 was appropriated for current expenses; $4,000 for machinery and improvements and for School of Agriculture, including agricultural experiments; and $1,000 for library—one-half of each appropriation to be paid in 1879, and one-half in 1880.

THE

SEVENTH ANNUAL REGISTER

—OF—

PURDUE UNIVERSITY,

LAFAYETTE, INDIANA.

1880–81.

INDIANAPOLIS:
CARLON & HOLLENBECK, PRINTERS AND BINDERS.
1881.

ILLINOIS INDUSTRIAL LIBRARY UNIVERSITY.

OFFICERS OF THE UNIVERSITY.

BOARD OF TRUSTEES.

JOSEPH C. RATLIFF	RICHMOND.
JOHN C. DOBELBOWER	LAFAYETTE.
JOHN S. WILLIAMS	LAFAYETTE.
WILLIAM H. RAGAN	CLAYTON.
JACOB MUTZ	EDINBURG.
CHARLES R. PEDDLE	TERRE HAUTE.

OFFICERS OF THE BOARD.

	PRESIDENT.
JOHN A. STEIN	SECRETARY.
MARTIN L. PEIRCE	TREASURER.

AUDITING COMMITTEE.

PRESIDENT WHITE, JOHN A. STEIN, JOHN C. DOBELBOWER.

FARM COMMITTEE.

JOHN S. WILLIAMS, JACOB MUTZ, PRESIDENT WHITE.

COMMITTEE ON EXPERIMENTAL AGRICULTURE AND HORTICULTURE.

JOSEPH C. RATLIFF, WILLIAM H. RAGAN,
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COMMITTEE ON MECHANICAL DEPARTMENT.

CHARLES R. PEDDLE, JOHN C. DOBELBOWER,
PRESIDENT WHITE.

FACULTY.

EMERSON E. WHITE, A. M., LL. D., PRESIDENT,
Professor of Intellectual Science, Political Economy, and English Literature.

HARVEY W. WILEY, A. M., M. D.,
Professor of Chemistry and Physics, and State Chemist.

DAVID G. HERRON, A. M., PH. D.,
Professor of Mathematics.

LANGDON S. THOMPSON,
Professor of Industrial Art.

CHARLES L. INGERSOLL, M. S.,
Professor of Agriculture and Horticulture.

ROBERT F. H. WEYHER, A. M.,
Professor of the German Language.

JOHN A. MAXWELL, A. M.,
Instructor in Latin and History.

WILLIAM F. M. GOSS,
Instructor in Mechanics.

CHARLES R. BARNES, A. M.,
Instructor in Botany, Zoology, and Geology,

EDWARD E. SMITH, B. A., B. S.,
Principal of the University Academy.

EDNA D. BAKER,
Instructor in Academy and Matron of Ladies' Hall.

MOSES C. STEVENS,
Registrar and Librarian.

JOHN W. HAYNES,
Farmer.

LOUIS BIANCHI,
Engineer and Superintendent of Buildings.

GEORGE VESTAL,
Horticulturist.

STUDENTS.

I. COLLEGE OF GENERAL SCIENCE.

POST GRADUATES.

GUILFORD L. SPENCER, B. S., Class of '79 .... LaFayette.
CHARLES C. GEORGESON, B. S., Mich. Agr. Col. '78, College Station, Tex.

SENIOR CLASS.

MAMIE EMMA FRASER	S*	Terre Haute.
JOHN MARTIN McBROOM	S	Hillsboro.
WILLIAM BUCHANAN SINCLAIR	S	San Pierre.
EVA WILSON SMITH	S	LaFayette.
JESSIE FLORENCE THOMPSON	S	LaFayette.
ALBERT KING WARREN	S	Carmel.
THOMAS PERKINS WEIR	S	Muncie.
WILLIAM EMERSON WHITE	S	Chauncey.

JUNIOR CLASS.

PHILIP DODRIDGE ALEXANDER	S	Mount Vernon.
HENRY ABRAHAM BECK	A	Trader's Point.
MAGGIE JANET CHAPMAN	S	LaFayette.
WILLIAM EDGAR DRISCOLL	A	Muncie.
OLIVER PERRY MORTON JAMISON	S	Chauncey.
LEW WALLACE KNEFLER	A	Indianapolis.
ELWOOD MEAD	S	Patriot.
JAMES BIRNEY SHAW, Jr.	S	Chauncey.
EDWARD EWING SICKLER	S	Otterbien.
JESSIE VERMILYE TALBOT	S	LaFayette.
ALLEN RUSSELL VINNEDGE	S	Kokomo.
WILLIAM EDWARD WHITE	S	Oxford.
STEPHEN A. D. S. LYONS	A	Boundary City.

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*Students taking the Scientific Course are designated by S; Agricultural Course by A; Mechanical Course by M.

SOPHOMORE CLASS.

James Wilson Allen	M	West Newton.
Kate Baker	S	Stockwell.
Kate Luvenia Bishop	S	Peru.
William Allen Bringham	S	Montmorency.
Frank Vincent Broadbent	S	Marion.
Horace Evens Bunnell	S	Walcott.
John McMillen Burrow	S	Logansport.
Lewis Nathaniel Charles	M	Indianapolis.
Florence May Chizum	S	Chauncey.
Carrie Avanelle Cory	S	Montmorency.
Elroy A Dillon	M	Danville.
Rose Williams Foster	S	Otterbien.
Anna Laura Foster	S	Otterbien.
Thomas Porter Hawley	S	Chauncey.
Charles Haskel Henderson	S	LaFayette(P.O.)
Harry Campbell Huffstetter	S	Orleans.
Harry G Lutz	S	LaFayette(P.O.)
Charles Almus Marsteller	S	Chauncey.
Alice Ritchie O'Neall	S	LaFayette(P.O.)
Walter Henry Peters	S	LaFayette.
Horace Robert Peters	M	LaFayette.
Walter Stevens Ratliff	A	Richmond.
James Freeman Rittenhouse	S	Liberty Mills.
Otis S Roberts	A	Oxford.
Mary Elliott Sleeper	S	LaFayette(P.O.)
Ida Virginia Smith	S	LaFayette.
George King Throckmorton	S	Romney.
Lura Louise Thompson	S	LaFayette.
James Milo Waugh	A	Colfax.

John Jacob Roush	S	LaFayette.

FRESHMAN CLASS.

Ned Orsmus Barnes	S	Homer, Ill.
Mary Walters Beach	S	LaFayette.
Joseph Evers Clapper	M	Dayton.
William Randolph Coffroth	S	LaFayette.
Bessie Coffroth	S	LaFayette.
Carry B Haigh	S	Battle Ground.
Clement Laird Harris	S	Montgomery.
Kerry Hill Kendall	S	Colfax.

Jessie Frances Levering	S	LaFayette.
Fanny Bennett Lutz	S	LaFayette (P.O.)
Flora Jane Lutz	S	LaFayette(P.O.)
Charles Denman Keyes	S	Santa Fe.
Frank Benton McConnell	S	Tipton.
George Washington McCoy	S	Lovely Dale.
Charles Fremont Moore	S	Montmorency.
Frances Clark Price	A	Remington.
Titus Ellsworth Price	S	Remington.
Harry Elisha Rank	S	Chauncey.
Dorsie Reed	S	Boonville.
Edith Richardson	S	Vermillion.
Edward Judson Roberts	S	Oxford.
Elizabeth Shoemaker	S	Chauncey.
Andrew Jackson Smith	S	Greenfield.
Alice May Surface	S	LaFayette(P.O.)
Albert Switzer	S	Elizabethtown.
Anna Taylor	S	Taylor's Station.
Charles Crittenden Warren	S	Rensselaer.
Lida S Westfall	S	Montmorency.
Emory Calvin White	S	Allegan, Mich.
James West Wright	S	Burlington.

Selar Arthur Douglass	S	Patriot.
Alice Farmbrough	S	Boggstown.
Robert Sigismund Parris	S	Rensselaer.
Louis Ruth Raub	M	South Raub.
William Philander Ryhn	A	Rossville.
Jennie Terry	S	Chauncey.
Warner Thompson Throckmorton	M	Romney.
Hattie Sheetz Van Natta	S	Fowler.
Charles Jonas White	S	Logansport.

II. SPECIAL SCHOOLS.

N. B. The special students named below include (1) students taking special courses only, and (2) students taking a special course in addition to one of the regular college courses.

SCHOOL OF CHEMISTRY.

Edward Frederick Bohrer	LaFayette.
Edward J Carnahan	LaFayette.

John Edwin Clark	LaFayette.
Eva Harding	LaFayette.
William Penn Hollingsworth	Farmers' Inst.
Oliver Perry Morton Lutz	Wea Station.
Charles Delucena Meigs	Romney.
James Birney Shaw, Jr.	Chauncey.
George McClellan Stoy	LaFayette.
William Weyher	Chauncey.
Edward Claxton Wilstach	LaFayette.

SCHOOL OF INDUSTRIAL ART.

James Wilson Allen	West Newton.
George William Ashby	LaFayette.
Kate Baker	Stockwell.
Edward Frederick Bohrer	LaFayette.
Maggie Janet Chapman	LaFayette.
Lewis Nathaniel Charles	Indianapolis.
Lizzie Dell Church	Buffalo, N. Y.
Carrie Avanelle Cory	Montmorency.
Elroy A Dillon	Danville.
Alta Marion Dresser	LaFayette.
Susie Compton Enfield	LaFayette.
Alfred Stuart Frost	Thomasville, Ga.
Lew Wallace Knefler	Indianapolis.
George Emerson Marsteller	Chauncey.
Clayton Potts	Indianapolis.
James Freeman Rittenhouse	Liberty Mills.
William Otis Riddell	Huntington.
Edward Ewing Sickler	Otterbien.
Mary Elliott Sleeper	LaFayette (P. O.)
Eva Wilson Smith	LaFayette.
Evaleen Stein	LaFayette.
Howard Justis Stocker	LaPorte.
Jessie Florence Thompson	LaFayette.
Lura Louise Thompson	LaFayette.
Edward Claxton Wilstach	LaFayette.

SCHOOL OF MECHANICS.

Lizzie Dell Church	Buffalo, N. Y.
George Emerson Marsteller	Chauncey.
Walter Henry Peters	LaFayette.
Clayton Potts	Indianapolis.

James Freeman Rittenhouse	Liberty Mills.
James Birney Shaw, Jr.	Chauncey.
Edward Ewing Sickler	Otterbien.
William Buchanan Sinclair	San Pierre.
Lura Louise Thompson	LaFayette.
William Emerson White	Chauncey.

SCHOOL OF AGRICULTURE.

Elwood Mead	Patriot.
Walter J Quick	Columbus.

THE UNIVERSITY ACADEMY.

SECOND YEAR.

Lizzie Allen	West Newton.
Etta Freedom Birch	Chauncey.
Emily Aurelia Borum	Shawnee Mound
Frank Bright	Rainsville.
Mary Atrah Brinegar	Chauncey.
Lewis Vinton Broadbent	Marion.
Eugene Clifford Brown	LaFayette.
Frank Brown	LaFayette.
Phebe Elizabeth Campbell	Newton's Retreat.
Myla Charles	Indianapolis.
Adaline Coppock	West Newton.
Leslie Atwood Cranston	Gibson City, Ill.
Richard Hanley Dillon	Fairmount.
John Douglas Dunn	Wheatland.
Jacob Ernest Durham	Russellville.
Georgian Ida Duryea	Wolcott.
Fannie Eliza Ewry	Chauncey.
John Robert Fisher	Battle Ground.
Maude Richmond Henderson	LaFayette.
Ella Belle Howard	Chauncey.
Hans Isler	LaFayette.
Mary Emma Jones	LaFayette.
Harry Lewis Kramer	Danville, Pa.
Essie Martin	Chauncey.
Laura Irene Martin	South Raub.
James Walker McBeth	Taylor's Station.

Belle Taylor McBride	LaFayette.
Harry McWorkman	Indianapolis.
John Edward McCarthy	LaFayette.
Charille Jane Moffitt	Remington.
Dellie Neff	Logansport.
Fannie Nisley	LaFayette (P. O.)
William Noonan	Hartford City.
Minnie Quick	Columbus.
Annie Rarey	South Raub.
Sallie Rarey	South Raub.
Lida Lucinda Raub	South Raub.
Edward Newton Reser	LaFayette (P. O.)
Lulu Rosa	Chauncey.
Mary Seabury Sample	LaFayette.
Rebecca Hunt Sickler	Otterbien.
Effie Alice Sickler	Otterbien.
Elmer Lee Sheetz	Remington.
George Shelby	Shelby's Grove.
Ella May Stockton	Chauncey.
Mary Swearingen	Chauncey.
Edward Taylor	Taylor's Station.
Bennett Taylor	Taylor's Station.
James Francis Ellsworth Thatcher	Hillisburg.
John Harvey Marshal Thatcher	Hillisburg.
Frank James Tracey	Chauncey.
Frank Webster Van Natta	Fowler.
Stephen Waggoner	Gibson City, Ill.
Elmer Sherman Walker	West Lebanon.
James Douglas Williams	Wheatland.
Frank Jenners Wilstach	LaFayette.
Charles Edgar Wintrode	Huntington.

FIRST YEAR.

Laura Belle Adams	Newton's Retreat
Orpha Allen	West Newton.
James Rufus Ammon	Lewisville.
Gross Antibus	Bloomfield.
Benjamin Franklin Bain	Martinsville.
William Eugene Berkey	Monon.
James Monroe Black	Wanatah.
George Montgomery Boyd	Stockwell.
Lorraine Bowyer	Chicago, Ill.

Warren Bratton	Wesley.
Harry Warren Buck	Wea.
Emma Permelia Buck	Wea.
Frederick Bunger	North's Landing.
Rosa Hattie Campbell	Newton's Retreat.
Arthur Maconn Chittick	Geetingsville.
Harry Coleman*	LaFayette.
Charles Cooper	LaFayette.
Mary Elizabeth Cooper	LaFayette.
Lora Mabel Cox	Chauncey.
Dexter Elmer Darnell	Bainbridge.
John Francis Dienhart	Chauncey.
Jasper Theodore Duckworth	Hyndsdale.
Andrew S Einsel	LaFayette.
Lewis Falley, Jr	LaFayette.
William Lester Fenstermaker	Lewisville.
Charles Edward Goss	Peoria, Ill.
Andrew Mutz Groundt	Edinburg.
Edward Heath	Templeton.
Lizzie May Horn	LaFayette.
Rosa Alvaretta Huddleston	Roann.
Charles Frederick Klein	Mount Auburn.
Edson Franklin Larimer	Millersburg.
David Long Mabbitt	Geetingsville.
Anna Edith Magovern	Chauncey.
John Mahley	Mount Auburn.
James Walter Martin	LaFayette.
Lacey L Moore	Montmorency.
Franz Sigel Moore	Montmorency.
Ada Byron Moore	Chauncey.
Lillie Belle Murdock	Wea.
Edward Lyon Olleman	Red House.
Lulu Perkins	Chauncey.
Frank Andrew Pierce	LaFayette(P.O.)
Joseph Gripton Rank	Chauncey.
Benjamin Stratton Ratliff	Richmond.
Chester Otis Read	Wilmington, Del.
George Wilkinson Ross	Raub.
James Ross	Raub.
John Godfrey Sample, Jr	LaFayette.
Benton Seegar	Marion.

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*Deceased.

Minnie Rose Shockey	LaFayette.
Clarence Snell	Onward.
Frederick Spencer	Monticello.
Frank Stockton	Chauncey.
Addalide Josephine Summers	LaFayette.
James Thomas Washburn	Star City.
George Washington White	Fowler.
Franklin Willey	Prather.

IRREGULAR.

Kate Duenna Adams	Newton's Retreat.
John James Busjahn	Logansport.
Harry Joseph Cooper	LaFayette.
Emma Manzilla Cox	LaFayette.
Joseph Pinckney Durham	Waveland.
Martha Ellen Eichholtz	Culver's St.
William Arthur Fankboner	Marion.
Francis Marion Frazier	Hartford City.
Emma Lucy Hanley	Chauncey.
William Wabash Kneale	Colburn.
James Henry Lyon	Delphi.
Mary Ellen Lynch	LaFayette.
Rosa Martin	LaFayette.
Charles Alvin Martin	South Raub.
John Franklin Masten	LaFayette.
Nathan Wilson Mattix	Culver's St.
John Henry Miller	Newton's Retreat.
John B Monk	Culver's St.
Charles Oliver Stimson	Washington, O.
Florence Lilian Stockton	Otterbien.
Charles Wheeler Travis	Chase.
Carrie Elizabeth Van Natta	Otterbien.
Sarah Columbia Van Natta	Otterbien.
Emma Jane Yager	LaFayette (P. O.)
Emory James Yager	LaFayette (P. O.)
Joseph Vandaver Zartman	Carroll.

SUMMARY.

COLLEGE.

Post Graduates	2	
Seniors	8	
Juniors	13	
Sophomores	30	
Freshmen	39	
		92

SPECIAL SCHOOLS.

Chemistry	11	
Industrial Art	25	
Agriculture	2	
Mechanics	10	
		48

ACADEMY.

Second year	57	
First year	58	
Irregular	26	
		141
		281
Students twice entered (deducted)		27
Total		254

NOTE.—The number of students enrolled in the University in 1874–75 (the first year) was 64; the number enrolled the second year was 67; the third year, 139; the fourth year, 166; the fifth year, 195; the sixth year, 203; the seventh or present year, 254.

PURDUE CADETS.

OFFICERS.

Captain	Prof. Harvey W. Wiley.
First Lieutenant	William B. Sinclair.
Second Lieutenant	William Emerson White.
First Sergeant	Henry A. Beck.
Second Sergeant	Lew W. Knefler.
Third Sergeant	Stephen A. D. S. Lyons.
First Corporal	James B. Shaw, Jr.
Second Corporal	John M. Burrow.
Third Corporal	Charles J. White.
Fourth Corporal	Harry G. Lutz.
Fifth Corporal	Elmer S. Walker.

PRIVATES.

George M. Boyd.
Lewis V. Broadbent.
Frank V. Broadbent.
Homer E. Bunnell.
Jacob E. Durham.
Harry C. Huffstetter.
Oliver P. M. Jamison.
Kerry H. Kendall.
Charles H. Henderson.
Frank Masten.
William A. Bringham.
Harry McWorkman.
Dell Neff.
Edward L. Olleman.
Titus E. Price.
Lewis R. Raub.
Dorsie Reed.
Edward E. Sickler.
Warner T. Throckmorton.
Frank Van Natta.
Allen R. Vinnedge.
Charles C. Warner.
William Edward White.
*James Ammon.
*Otis S. Roberts.
*James C. Ross.
*Harry L. Kramer.

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*Entered recently.

COURSES OF STUDY.

Purdue University is a college of Science, Agriculture, and the Mechanic Arts. It embraces three departments, designated as follows:

I. The College of General Science.

II. Special Schools of Science, Agriculture, and the Mechanic Arts.

III. The University Academy.

The aim and scope of these departments are indicated below. They are open to students of both sexes.

I. THE COLLEGE OF GENERAL SCIENCE.

The College of General Science provides three general courses of study—

The Scientific Course,
The Agricultural Course,
The Mechanical Course.

The aim of the Scientific Course is to give a thorough scientific education as a general preparation for all industrial pursuits; and, secondly, as an adequate preparation for special courses of study. The natural and physical sciences are the *leading* branches in the course, requiring about one-third of the student's time for the entire period of four years. It also gives unusual prominence to industrial art.

The Agricultural Course aims to give a good scientific education, and also to impart a thorough and practical knowledge of agriculture and horticulture. It adds to the instruction of the scientific course (Latin and German excepted) a systematic course of instruction and practice in agriculture and horticulture, covering a period of three years. Special attention is given to scientific experiments.

The Mechanical Course adds to the branches of study in the scientific course (Latin, German, and Natural History excepted) two years of shop practice in the use of hand and machine tools for working in wood and iron, one year's instruction in the elements of carpentry, pattern-making, founding, mill-work, machinery, etc., and one year's training in mechanical drawing—an excellent preparation for a mechanic or machinist, or for a special course in mechanical or civil engineering. These several courses of mechanical instruction and practice are included in the freshman and sophomore years.

These three general courses of study are so arranged that they include nearly the same instruction in science, mathematics, industrial drawing, English, history, and philosophy. In addition to the branches common to the three courses, the scientific course adds three years of Latin or German; the agricultural course, three years of agriculture and horticulture; and the mechanical course, two years of practical mechanics and mechanical drawing.

Students in the agricultural course or in the mechanical course, who are candidates for the degree of Bachelor of Science, (B. S.) are required to take two years of Latin or German. The added Latin or German may be taken in the junior and senior years.

I. SCIENTIFIC COURSE OF STUDY.

N. B. The required branches are printed in SMALL CAPS; the elective branches in *italics*.

Freshman Year.	1st Term	BIOLOGY	GEOMETRY	INDUSTRIAL DRAWING	LATIN OR GERMAN.
	2d Term	BOTANY	GEOMETRY	INDUSTRIAL DRAWING	LATIN OR GERMAN.
	3d Term	BOTANY	GEOMETRY, 6 w. ALGEBRA, 5 w.	INDUSTRIAL DRAWING	LATIN OR GERMAN.
	ENGLISH COMPOSITION, one lesson a week; *Military Tactics*, three exercises a week.				
Sophomore Year.	1st Term	ZOOLOGY	HIGHER ALGEBRA	ANCIENT HISTORY	LATIN OR GERMAN.
	2d Term	PHYSICS	TRIGONOMETRY, (Pl. & Sp.)	MEDIÆVAL HISTORY	LATIN OR GERMAN.
	3d Term	PHYSICS	SURVEYING	MODERN HISTORY	LATIN OR GERMAN.
	LITERARY EXERCISES, one a week; *Military Tactics*, three exercises a week.				
Junior Year.	1st Term	CHEMISTRY	ANALYTICAL GEOMETRY	RHETORIC	LATIN OR GERMAN.
	2d Term	CHEMISTRY	ANALYT'L GEOMETRY, 6 w. ASTRONOMY, 6 w.	ENGLISH LITERATURE	LATIN OR GERMAN.
	3d Term	CHEMISTRY	ASTRONOMY	ENGLISH LITERATURE	LATIN OR GERMAN.
	ELOCUTION, one lesson a week; *Military Tactics*, three exercises a week.				
Senior Year.	1st Term	PHYSIOLOGY	*Differential Calculus*	POLITICAL ECONOMY, 12 w U. S. CONSTITUTION	*Latin or German.*
	2d Term	GEOLOGY	*Int. Calculus*	INTELLECTUAL SCIENCE	*Latin or German.*
	3d Term	GEOLOGY	*Logic*	INTELLECTUAL SCIENCE	*Latin or German.*
	ENGLISH LITERATURE, one lesson a week; *Military Tactics*, three exercises a week.				

Senior students are required to pursue daily at least three branches of study In place of the elective branches named above, they may take, for a third study, Industrial Design, or Chemistry, or Physics, or Botany, or Zoology, provided that two or more students select the same study. A course in Industrial Design, two hours daily, may be taken in place of the Latin or the German of the Junior year.

II. AGRICULTURAL COURSE.

N. B. The required branches are printed in SMALL CAPS; the elective branches in *italics*.

Freshman Year.	1st Term	STOCK AGRICULTURAL EXPER'T	BIOLOGY	GEOMETRY	INDUSTRIAL DRAWING.
	2d Term	STOCK BREEDING COMPARATIVE ANATOMY	BOTANY	GEOMETRY	INDUSTRIAL DRAWING.
	3d Term	VETERINARY OBSTETRICS. ENTOMOLOGY	BOTANY	GEOMETRY, 6 W. ALGEBRA	INDUSTRIAL DRAWING.

ENGLISH COMPOSITION, one lesson a week.

Sophomore Year.	1st Term	HORTICULTURE FLORICULTURE, ETC.	ZOOLOGY	HIGHER ALGEBRA	ANCIENT HISTORY.
	2d Term	LANDSCAPE GARDENING FORESTRY	PHYSICS	TRIGONOMETRY	MEDIÆVAL HISTORY.
	3d Term	MARKET GARDENING DRAINAGE	PHYSICS	SURVEYING	MODERN HISTORY.

LITERARY EXERCISES, one a week.

Junior Year.	1st Term	VETERINARY SCIENCE	CHEMISTRY	ANALYTICAL GEOM'Y.	*Latin or German.*
	2d Term	FARM MANAGEMENT METEOROLOGY	CHEMISTRY	ANALYTICAL GEOM'Y. ASTRONOMY, 6 W.	*Latin or German.*
	3d Term	AGRICULTURAL CHEM.†	CHEMISTRY	ASTRONOMY	*Latin or German.*

ELOCUTION; one lesson a week.

Senior Year.	1st Term	POLITICAL ECONOMY, 12 W. U. S. CONSTITUTION	PHYSIOLOGY	RHETORIC ‡	*Latin or German.*
	2d Term	INTELLECTUAL SCIENCE	GEOLOGY	ENGLISH LITERATURE‡	*Latin or German.*
	3d Term	INTELLECTUAL SCIENCE	GEOLOGY	ENGLISH LITERATURE‡	*Latin or German.*

†May be taken in Senior Year. ‡ May be taken in place of the Mathematics of the Junior Year.

A two years' course in Latin or German is required of candidates for the degree of Bachelor of Science.

III. MECHANICAL COURSE.

N. B. The required branches are printed in SMALL CAPS; the elective branches in *italics*.

Year	Term	SHOP PRACTICE.			
Freshman Year.	1st Term	Wood-Work	Carpentry	Geometry	Industrial Drawing.
	2d Term	Pattern Making	Pattern Construction Casting and Founding	Geometry	Industrial Drawing.
	3d Term	Vise Work	Machine Drawing	Geometry, 6 w. Algebra	Industrial Drawing.

English Composition, one lesson a week; *Military Tactics*, three exercises a week.

Year	Term				
Sophomore Year.	1st Term	Forging	Machine Drawing	Higher Algebra	Ancient History.
	2d Term	Machine Work	Machine Drawing	Trigonometry	Physics.
	3d Term	Machine Work	Mill-Work; Machinery	Surveying	Physics.

Literary Exercises, one a week; *Military Tactics*, three exercises a week.

Year	Term				
Junior Year.	1st Term	Latin or German	Chemistry	Analytical Geometry	Rhetoric.
	2d Term	Latin or German	Chemistry	Analytical Geom'y. Astronomy, 6w.	English Literature.
	3d Term	Latin or German	Chemistry	Astronomy	English Literature.

Elocution, one lesson a week; *Military Tactics*, three exercises a week.

Year	Term				
Senior Year.	1st Term	Latin or German	Higher Physiology	*Diff. Calculus*	Political Economy, 12 w. U. S. Constitution.
	2d Term	Latin or German	Geology	*Int. Calculus*	Intellectual Science.
	3d Term	Latin or German	*Geology*	*Logic or Moral Science.*	Intellectual Science.

English Literature, one lecture a week; *Military Tactics*, three exercises a week.

The shop practice includes two hours of actual work in the shop daily, five days each week. See page 30. Students who are not candidates for the degree of Bachelor of Science, can take Industrial Design or Mechanical Drawing in place of Latin or German in the Junior and Senior years. Students who wish to take a course in Mechanical or Civil Engineering will be admitted to the School on the completion of the first two years of the above course. The School of Engineering will be opened in September, 1882.

THE THREE COLLEGE COURSES COMBINED—

N. B.—This scheme shows the manner in which the three college

		Studies common to the Courses.		
Freshman Year.	1st Term	Biology*	Geometry	Industrial Drawing.
	2d Term	Botany*	Geometry	Industrial Drawing.
	3d Term	Botany*	Geometry, 6 w Algebra.	Industrial Drawing

English Composition, one lesson a week.

Sophomore Year.	1st Term	Zoology*	Higher Algebra	Ancient History
	2d Term	Physics	Trigonometry	Mediæval History
	3d Term	Physics	Surveying	Modern History

Literary exercises, one a week.

Junior Year.	1st Term	Chemistry†	Analyt'l Geometry	Rhetoric
	2d Term	Chemistry†	Anal. Geometry Astronomy, 6 w.	English Literature
	3d Term	Chemistry†	Astronomy	English Literature

Elocution, one lesson a week.

Senior Year.	1st Term	Higher Physiology	Diff. Calculus	Politic'l Economy U. S. Constitution
	2d Term	Geology	Int. Calculus	Intellectual Science
	3d Term	Geology	Logic	Intellectual Science

English Literature, one lesson a week.

*Not included in Mechanical Course. †Two hours daily

CIENTIFIC, AGRICULTURAL, MECHANICAL.

ourses are united in class instruction. See pp. 15, 16.

In Scientific Course.	In Agricultural Course.	In Mechanical Course.		
atin or German	Agriculture‡	Shop Practice; Carpentry.‡		
atin or German	Agriculture	Shop Practice; Pattern Construction. Casting and Founding		
atin or German	Agriculture	Shop Practice; Machine Drawing.		
Military Tactics, three exercises a week.				
atin or German	Horticulture‡	Shop Practice; Machine Drawing ‡		
atin or German	Horticulture	Shop Practice; Machine Drawing.		
atin or German	Agriculture	Shop Practice; Mill-work, etc.		
Military Tactics, three exercises a week.				
atin or German	Agriculture‡	Mech. Drawing‡ or Industrial Design.‡		
atin or German	Agriculture	Mech. Drawing or Industrial Design.		
atin or German	Agricultural Chemistry§	Mech. Drawing or Industrial Design.		
Military Tactics, three exercises a week.				
atin or German	Chemistry‡	Physics	Nat'l History‡	Industrial Art.‡
atin or German	Chemistry	Physics	Nat'l History	Industrial Art.
Ioral Science	Chemistry	Physics	Nat'l History	Industrial Art.
Military Tactics, three exercises a week.				

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‡ For course of instruction and practice, see Special Schools, pp. 28–37.

§ May be taken the first term of Senior year.

INSTRUCTION.

The instruction in Natural History commences in the first term of the Freshman year, with a course in Elementary Biology. This is intended to lay the foundation for a thorough and accurate knowledge of Zoology and Botany. The instruction is of a practical nature, the actual observations of the student in the laboratory taking the place of recitation from a text-book. A sufficient number of dissecting and compound microscopes are provided to enable each pupil to do for himself all the work required. It is expected that a thorough study will be made of a number of typical plants and animals, such as the yeast plant, *Amœba*, a fern, *Capsella*, the fresh water mussel, frog, etc.

In Botany, the first term is devoted to the gross anatomy of Phanerogamous plants, with special reference to the doctrine of Morphology. Instruction will be given in the best methods of collecting, preserving, and studying plants, and, in the second term, students dissect and analyze a number of common wild flowers. The second term is devoted to Physiological Botany, including the subjects of food, assimilation, and metastasis, growth, fertilization, influence of light and temperature, movements, etc. Cryptogamous plants, useful or harmful, are briefly considered.

The instruction in Zoology aims to give the pupil an accurate knowledge of the structure and habits of typical species of the several groups of the animal kingdom. Dissections, commenced in the course in Biology, will be continued with special reference to structure and structural modifications in the different groups. Vertebrates and insects receive most attention, while the less known animals will not be neglected. In Systematic Zoology pains will be taken to show the genetic relationships between the different classes and orders.

The ccurse in Physiology is intended to give a more detailed knowledge of the functions of the human body than would be possible earlier in the course. Both the anatomy and functions of the nervous system, preparatory to the study of Intellectual Science, will receive special attention.

In Geology, the first eight weeks will be devoted to Dynamical and the last term to Historical Geology. The intervening four weeks are employed in a short course in Determinative Mineralogy, unknown minerals being named after a study of their physical and chemical characters. There will also be work in the cabinet in the determination of fossils.

The course in Physics, in the Sophomore year, includes the elements of mechanics, hydrostatics, pneumatics and acoustics, the first term; and chemical physics, including heat, light, statical and galvanic electricity, the second term. The course in the Senior year includes more advanced instruction in heat, light, sound and electricity, with laboratory practice.

The course in Chemistry in the Junior year includes theoretical and experimental chemistry, and the elements of synthetical chemistry, analytical chemistry (qualitative analysis), and crystallography. The instruction includes lectures and recitations (5 hours a week), and laboratory practice (5 hours a week). Students use the balance and apply the principles of stoichiometry from the first. Definite quantities of substances are used and the product of each reaction weighed or measured, and the *actual* quantities thereof compared with the theoretical. Reports of all work done are made out on blanks, provided for the use of students.

The instruction in Drawing, in the Freshman year, first term, begins with instrumental work. About one hundred problems in geometrical drawing, to be solved by means of the ruler and the compas, are given as lectures from the blackboard, on which the students must pass an examination. The time required for this is about four weeks. During the rest of the term, about one hundred problems in linear perspective including parallel, angular, and oblique, showing how to put into perspective the various geometrical forms under given conditions of size, distance, position with reference to the spectator, and position with reference to both picture and ground planes, are given as lectures from the blackboard.

The second term includes one hundred or more problems illustrating the elementary principles of orthographic projection (commonly known as the making of plans, elevations and other "working drawings"), including the development of surfaces, intersections of surfaces with cutting planes and with each other, and isometric projection. The instruction is given from the blackboard.

The third term includes free-hand outline drawing from round geometrical models, as cylinders, cones, vases, crockery-ware and such common objects as illustrate the circle seen obliquely; the drawing of cubes, of square, triangular and hexagonal prisms, crosses, skeleton cubes, etc.; the drawing of these geometrical solids, above mentioned, *in groups*, and the application of the same to the drawing of irregular objects, as chairs, tables, desks, sofas and buildings; and the drawing of some of these geometrical solids in shade with the stump.

The instruction in English is made as practical and comprehensive as possible. Thorough instruction in mechanical composition is accompanied and followed by systematic and continued practice in writing. The course in Rhetoric ends with a critical study of the works of several standard writers.

The instruction in English Literature aims to interest and direct the student in the reading of the best works of one or more of the leading authors of each literary epoch. It is believed that the inspiring study of a few representative writers is much more valuable than the memorizing of a catalogue of authors, with glances at specimens of their style.

The students in the Scientific Course are required to study Latin or German three years, and the language selected may be studied through the Senior year. Two years of Latin and two years of German may be taken in place of the three years of Latin or German.

The course in Latin, in the Freshman year, includes the grammar, the reader, a few chapters of Cæsar, and prose composition; in the Sophomore year, three books of Cæsar, five orations of Cicero, and prose composition; in the Junior year, five books of Virgil two terms, and De Senectute one term; in the Senior year, Horace one term, Tacitus one term, and Livy one term.

The course in German includes, in the Freshman year, Worman's Elementary Course (Grammar and Reader), and composition and conversation; in the Sophomore year, Worman's Complete Course, composition and conversation; in the Junior year, Schiller's William Tell and Mary Stuart, Goethe's Egmont, composition and conversation; in the Senior year, a scientific work in German, Goethe's Faust, history of German literature and language (by lectures), and composition and conversation.

The instruction in History aims (1) to impart a knowledge of leading historical events, and (2) to cultivate a taste for historical reading. Special attention is given to the lives and characters of the prominent men of each epoch. The department of history is well represented in the Library, a number of excellent works having been added the present year.

The instruction and practice in Agriculture and Horticulture and Mechanics are fully described in the special courses (pp. 28–32), each of which forms a part of the regular course.

CONDITIONS OF ADMISSION.

Applicants for admission to the College of General Science must be over sixteen years of age, and of good character. Those possessing more than common physical health and strength, with high attainments in preparatory studies, may be admitted at an earlier age.

Applicants for admission to the Freshman class must pass a satisfactory examination in the common branches, and also in Elementary Algebra (including quadratic equations), the History of the United States, Physical Geography, and Physiology. An applicant's knowledge of the common branches must be sufficient to entitle him to a teacher's certificate of good grade. Applicants for admission to higher classes must pass an examination in the lower studies. Applicants who have completed their course of preparation in High Schools, which hold the certificate of the State Board of Education, will be admitted without examination.

EXAMINATIONS FOR ADMISSION.

Entrance examinations are held at the University in June and September of each year—in 1881, the first, June 7th and 8th, and the second, September 6th and 7th. Applicants may appear at either examination, but, when practicable, it is best to apply for examination in June.

N. B. *Arrangements have been made for holding entrance examinations in the several counties of the State, under the direction of County Superintendents.* Applicants for such an examination should be made to the President of the University, Lafayette, Indiana. On the receipt of one or more applications from any county, printed questions, with directions, will be sent to the County Superintendent, and the applicant or applicants may present themselves at the first regular county examination for teachers. The written answers will be forwarded to the University, where they will be read and marked, and a certificate of admission forwarded to each applicant who has passed the examination. *The first county examination of applicants for admission to the University will be held in connection with the* *regular examination of teachers, the last Saturday in July,* 1881. Application for examination at this time should be made as early as July 10.

DEGREES.

The degree of Bachelor of Science (B. S.) will be conferred on students who complete the Scientific course, and on those who complete the Agricultural course or the Mechanical course, with two years of Latin or German. See page 16.

The degree of Master of Science (M. S.) will be conferred on persons holding the degree of B. S., who, having devoted at least three years to the study of advanced science, pass an examination on the same, and submit a thesis.

The degree of Analytical Chemist (A. C.) will be conferred on students who complete the course in Chemistry.

A diploma will be granted to students who complete the course in any one of the Special Schools.

Candidates for a degree, or for a diploma, may present themselves at the annual examination, before commencement. Application should be made at least three months before the examination. A residence at the University is not required.

II. SPECIAL SCHOOLS.

The following special schools have been organized:

1. School of Agriculture and Horticulture.
2. School of Mechanics.
3. School of Industrial Art.
4. School of Chemistry.
5. School of Natural History.
6. School of Mechanical and Civil Engineering.

These schools provide special courses of instruction for students who wish to pursue one or two branches as *specialties*. The courses in Agriculture, and Horticulture, and Mechanics, are the same as those included in the regular Agricultural and Mechanical courses in the College. Special students in either of these schools can take the courses prescribed for two years, in one year. The courses in the other Special Schools are designed to supplement the instruction included in the regular college courses, with more advanced and more special instruction.

These Special Schools are all open to students who have the requisite knowledge of preparatory branches. The conditions of admission include those prescribed for admission to the College of General Science (see page 25), and such other conditions as may be stated in connection with the several courses of study. Students who have not received this preparatory training fail, as a class, to do satisfactory work, and thus impede the progress of other students.

Graduates from other institutions, who have received the degree of Bachelor of Science, or Bachelor of Arts, will be admitted to any one of the Special Schools without examination.

The statements and schedules below are intended to give a general idea of the courses of instruction and practice in the Special Schools.

I. SCHOOL OF AGRICULTURE AND HORTICULTURE.

The students in this school enter the classes taking the regular Agricultural Course, and are subject to the same regulations. The course of study and practice for special students, is as follows:

FIRST YEAR.

First Term—Lectures on stock—breeds of horses, cattle, sheep and swine; farm experiments, etc.; biology.

Second Term—Stock breeding; comparative anatomy; botany.

Third Term—Veterinary obstetrics; entomology; botany.

SECOND YEAR.

First Term—Horticulture, floriculture, and green-house management; zoology.

Second Term—Landscape gardening; forestry; physics.

Third Term—Market-gardening; drainage; physics.

THIRD YEAR.

First Term—Veterinary science; chemistry.

Second Term—Farm management and economy; meteorology; chemistry.

Third Term—Agricultural chemistry.

The agricultural students are required to labor two hours a day, during the first and third terms. In the second or winter term, an abbreviated course in practical mechanics is taken.

The labor is chiefly done on the campus, in the nursery and orchard, in the green-house and in the experimental field; and the students thus receive practical training in the care of lawns, hedges and ornamental trees, orchards and vineyards, and in the cultivation of small fruits, garden products, cereals, grasses, etc.

The reading room of the University is furnished with such standard papers as the Agricultural Gazette (London), Gardener's Monthly, National Live-Stock Journal, American Agriculturist, and Poultry World, besides eight others equally as good, but less devoted to specialties.

The library contains bound volumes of several good journals for years past, and the following works of reference, with many others: Chauveau's Anatomy (Comparative), Allen's American Cattle, History of Short Horn Cattle, Arnold's American Dairying, The Ayrshire Cow, French's Farm Drainage, Waring's Elements of Agriculture, and

Downing's Fruit and Fruit Trees of America, Warder's Pomology, Kemp's Landscape Gardening, Henderson's Works on Gardening, Barry's Fruit Garden, Warder's Hedges and Evergreens, several volumes of the Royal Agricultural Society's Reports, and those of the Highland Society, of Scotland.

II. SCHOOL OF MECHANICS.

The students in this school enter the class taking the regular Mechanical Course, and are subject to the same regulations. The course of training, including shop practice (two hours daily) and supplementary instruction, is as follows:

FIRST YEAR.

FIRST TERM.

Shop Practice.—Bench work in wood, ten weeks; wood turning, five weeks. The bench work consists of exercises in sawing, planing and rabbeting; in making mitre and dovetail joints, pannel work, etc. Wood turning includes the construction of a series of small, ornamental articles, so arranged as to illustrate the different uses of the cutting tools, and the different adjustments of the lathe.

Supplementary Instruction.—The construction and action of hand and machine tools for wood working; principles of framing, building of floors and partitions, and other subjects pertaining to general carpentry.

SECOND TERM.

Shop Practice.—Pattern making, bringing into use the knowledge and skill acquired in both the bench-work and wood-turning courses. Castings from some of the patterns will be used in the vise work and machine courses that follow.

Supplementary Instruction.—The general principles of pattern construction, allowance for draft shake, shrinkage and finish, construction of special patterns, blocks, ornaments and cores for columns; thin work. General foundry work; construction and management of furnaces and core ovens, molding, sweep and loam work, etc.

THIRD TERM.

Shop Practice.—Vise work in iron, including filing, chipping, and sawing and the squaring and fitting of cast iron, wrought iron and steel, entirely by hand.

Supplementary Instruction.—Machine drawing, explanation and drawing of eccentrics, cams, to produce given motions, pillow-blocks, shaft-hangers, and brackets.

SECOND YEAR.

FIRST TERM.

Shop Practice.—Forging, beginning with the simple operations of drawing and upsetting, and gradually advancing through the different processes of welding and forming, until very difficult iron forgings are made. Steel work is then taken up, in much the same way, tools of many different kinds being made and tempered.

Supplementary Instruction.—Machine drawing; the drawing of spur and bevel geared wheels, including cycloid and involute curves and their application to the development of the teeth in the above named gears.

SECOND TERM.

Shop Practice.—Machine work, bringing into use the different adjuncts of the machines, center rest, boring bar, and planer center. Practice is given in all kinds of turning, planing, drilling, screw cutting, taper fitting, etc.

Supplementary Instruction.—Machine drawing, including drawings from actual machines and parts of machines, made to scale from measurements taken by the student.

THIRD TERM.

Shop Practice.—Machine work continued from second term.

Supplementary Instruction.—Machines for iron working, different forms of cutting tools, cutting speeds and feed, general manipulations, machine construction, and mill work.

Besides the class work in the shops, there is generally an opportunity for those desiring work to add to their experience, by making repairs and in the construction of tools and appliances for the different departments of the institution. For such work students receive compensation at the rate of ten cents per hour.

The mechanics shop is adequately fitted for the above courses, and the University library contains valuable reference books and journals, including Appleton's Dictionary of Applied Mechanics (2 vols.), Rankin's Mechanical Textbook, Rose's Practical Machinist, Goodeve's Elements of Mechanism, Hasson's Mechanic's Tool Book, Jellett's Theory of Friction, Joynion's Machine Gearing, Clark's Manual of Rules, Tables and Data, Northcott's Lathes and Turning, Champion's Mechanical Engineering and Workshop Machinery, Van Buren's Strength of Parts of Steam Machinery, Van Nostrand's Steam Engine, Propellers, etc., Clark's Practical Millwright, the "Scientific American," "Scientific American Supplement," and about as many other works of like value.

III. SCHOOL OF INDUSTRIAL ART.

The instruction in this School includes two courses, and applicants for admission to either must have completed the course in Drawing prescribed for the Freshman class of the College, or its equivalent.

I. INDUSTRIAL DESIGN.

FIRST YEAR.

Free-hand and instrumental drawing, in addition to the course prescribed for the Academy and College classes, will include drawing and shading from casts; shading with different mediums, as crayon, charcoal, sepia, neutral tint, India-ink, etc.; botanical analysis of plants and the conventionalization of foliage from nature for purposes of design; historical ornament; harmony and contrast of color.

SECOND YEAR.

The second year will be devoted almost entirely to designing articles of manufacture and their ornamentation, as furniture, iron-work, stone carving, carpets, porcelain, wall paper, prints, oil-cloth, stained glass, etc.; also, to the modeling in clay of various ornamental designs suitable for carving in stone or wood.

Some of the books of reference for this department, in the library, are "Principles of Decorative Design," by Christopher Dresser; Dresser's "Studies in Design;" "Redgrave's Manual of Design;" "Spofford's Art Decoration Applied to Furniture;" "Billings's Power of Form;" Babbitt's "Principles of Light and Color."

II. MECHANICAL DRAWING.

FIRST YEAR.

Same as first year of course in Industrial Design, except that the instrumental drawing will include the drawing of the details of machinery.

SECOND YEAR.

1. Drawings made to scale of engines and other machines, showing plans, elevations, and sections from copy.
2. Drawings of machines, as a lathe, engine, or other machine, from measurements made by students.
3. Drawings made from data given.
4. Original designs for machines, giving plans, elevations, sections, etc.
5. Orthographic projection and projection of shadows will be continued from first year, and in addition, Descriptive Geometry, development of surfaces, intersections of solids, and stereotomy will be studied.

The principal books of reference in this department are "The Practical Draftsman;" "Appleton's Cyclopedia of Drawing;" "Watson's Course in Descriptive Geometry;" "Warren's Descriptive Geometry;" "Warren's Machine Construction and Drawing;" "Weisbach's Mechanics and Mechanical Engineering."

IV. SCHOOL OF CHEMISTRY.

This School is open to students who have completed the first two years of one of the College courses, or an equivalent.

FIRST YEAR.

Same as in Junior year of the Scientific course.

SECOND YEAR.

First Term.—Lectures on Qualitative Analysis, five hours a week; laboratory practice, ten hours a week.

Second Term.—Lectures on Qualitative Analysis continued; soils, minerals, and fertilizers; principles of Quantitative Analysis. Instruction, five hours a week; laboratory practice, ten hours a week.

Third Term.—Processes of Quantitative Analysis continued; general review of principles of analysis. Instruction, five hours a week; laboratory practice, ten hours a week.

THIRD YEAR.

The studies of this year are arranged in three divisions, and a student, especially a graduate, should be able to pursue successfully at least two of them. It is expected that students in the third year's course will give from six to eight hours a day to actual work in the Laboratory, since it is only by constant practice that celerity and accuracy can be attained.

I. *Mineralogy.*—Descriptive and mathematical crystallography; drawing of crystal forms; use of goniometer;

determinative mineralogy, to be taught in the Mineralogical Laboratory.

The Laboratory is provided with reflecting and common goniometers, a full set of crystal models in glass, with colored silk-thread axes, and a set of wooden crystal models to illustrate modified forms. It is also provided with a respectable collection of minerals, suitable for illustration of physical properties and for use in chemical analysis.

II. *Metallurgy and Assaying.*—The course will include the assaying of lead, silver and copper ores, the assaying of coins, plate, etc., the analysis of iron and zinc ores, and the methods of manufacture of wrought-iron and steel.

Crucible assays and cupellations will be practiced with ores of lead, silver, gold and copper, but with coin and plate the volumetric assay will be chiefly employed. Instruction will also be given in electro-plating and the composition of alloys.

When practicable, excursions will be made to inspect furnaces in operation. Iron furnaces are accessible at Brazil and Knightsville, Bessemer steel works at Chicago, and zinc furnaces at La Salle, Illinois.

N. B. Students in Metallurgy and Assaying are required to take the course in Mineralogy.

III. *Organic Chemistry.*—Lectures, recitations, and laboratory work. Special attention is given to the practical study of fermentation, properties and synthesis of alcohols, coal-tar products, etc. This work will have special reference to technical applications.

The Chemical Laboratory has a well-selected library, relating to all departments of the science. Among the journals taken are "The Chemical News," London; "Chemisches Central Blatt," Leipzig, and the "American Journal of Chemistry."

V. SCHOOL OF NATURAL HISTORY.

Two courses are open to students, viz: Botany and Zoology, and they will be permitted to select the branch to which they wish to give special attention.

I. BOTANY.

Candidates for admission must have completed the course in Biology and Botany in the Freshman year, or its equivalent.

FIRST YEAR.

First Term.—Systematic and Structural Botany continued. During the first eight weeks students will analyze in the Laboratory species of the more difficult orders, Compositæ, Gramineæ, etc., those more easily obtained in the fall. The remainder of the term will be devoted to the study of dried specimens, of which scientific descriptions will be required.

Second and Third Terms.—Physiological Botany, with experiments and laboratory work.

SECOND YEAR.

First Term.—Histology. A full study of the tissues of plants will be made with the aid of compound microscopes. Drawings to scale are required.

Second Term.—Organogeny and Embryology. Laboratory work similar to that of the first term.

Third Term.—Economic Botany, Systems of Classification, History of Botany, and some notice of prominent workers in the science, will complete the course.

II. ZOOLOGY.

Candidates for admission must have completed the course in Zoology in the Sophomore year, or its equivalent.

FIRST YEAR.

First and Second Terms.—Invertebrate Zoology, with special attention to structure and relationships. Actual study of alcoholic and living specimens will be required.

Third Term.—Vertebrate Zoology; the classes *Pisces, Amphibia,* and *Reptilia.*

SECOND YEAR.

First Term.—Vertebrate Zoology, continued; the classes *Aves* and *Mammalia.*

Second Term.—Histology; study of tissues with the microscope. Drawings to scale.

Third Term.—During the third term the student may devote himself to the study of some special group of animals, or may take up the study of Embryology, as illustrated by the development of the chick.

In connection with each subject instruction will be given in the best methods of collecting, preserving, and studying the species under consideration.

VI. SCHOOL OF MECHANICAL AND CIVIL ENGINEERING.

This School will be reorganized in September, 1882. It will be open to students who have completed the first two years of the regular Mechanical course of the College, or an equivalent.

The course of instruction will be given in the next annual register.

III. THE UNIVERSITY ACADEMY.

The Academy has the two-fold object of preparing students for admission to the College of General Science, and of providing thorough instruction in the higher common-school branches, for those who can not take a more extended course. It thus fills the gap between the common country school and the college. The Academy is in charge of first-class teachers, and is provided with commodious rooms and other appliances necessary for thorough and practical instruction.

In all the work done the students are required to be thorough and practical. They illustrate History and Physical Geography by maps, diagrams, charts, profiles, etc.; Physiology by suitable designs, and the drills in reading are supplemented by the study of American authors. Recapitulations, analyses, and critical discussions are required in English.

The instruction in Drawing includes free-hand outline drawing from copy, dictation, and memory, and the elementary principles of object drawing.

Special pains is taken to make the work of the review classes in the summer term practical and suggestive. Much information is given by oral instruction, the use of the microscope, dissections, views with the scientific lantern, etc. An excellent opportunity is thus afforded teachers and others to review the legal branches.

The course of study is so arranged that students who pass a satisfactory examination in Arithmetic, Geography, English Grammar, Reading and Spelling, can prepare for the Freshman class in one year. Physiology and United States History can be reviewed in connection with the studies of the second year.

The first year's course is devoted to the "legal branches." A class for the review of Geography will be formed in the third term, when there is a demand for it.

The regular course of study is as follows:

COUSE OF STUDY.

FIRST YEAR.

First Term	Arithmetic	Physiology	English Grammar †	Drawing.
Second Term	Arithmetic, 8w... Reading	Physiology, 5w... U. S. History	English Grammar	Drawing, 5w. Penmanship.
Third Term	Reading	U. S. History	English Grammar...	Penmanship.

Rhetorical Exercises, one lesson a week.

SECOND YEAR.

First Term	Algebra	Physical Geog.	Eng. Analysis...	Drawing* or Book-keeping.
Second Term	Algebra	Physical Geog. ..	Elementary Rhetoric, with Author-Study	Drawing* (5w), or Book-keeping. Penmanship, or Book-keeping.
Third Term	Algebra	Civil Gov'm't		Penmanship*, or Book-keeping.

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*Students who have taken the course in Drawing and Penmanship, may take Book-keeping instead.

† The first term is devoted chiefly to Composition, which is continued, with frequent exercises, through the entire course in English.

Students who do not intend to enter the College, may take German in the second year.

Students who expect to attend the Academy but one or two terms, and those who, for other good reasons, may not wish to take the regular course, will be permitted to pursue selected studies, provided they are prepared to recite in classes already organized. *Special classes can not be formed.* Students once admitted to a class can not leave it, except by permission of the Academy Faculty.

CONDITIONS OF ADMISSION.

Applicants for admission to the Academy should be over fifteen years of age. They must pass a satisfactory examination in Arithmetic (through percentage), Geography, English Grammar (Etymology) and Spelling. The examination must show a fair knowledge of these elementary branches, as taught in the common schools.

N. B. *Arrangements have been made for holding entrance examinations in the several counties of the State, under the direction of County Superintendents.* Applications for examination should be made to the President of the University, LaFayette, Indiana. For fuller directions, see page 26.

Applicants for the second-year course are examined at the University, in the common branches, and also in Physiology or History. Their knowledge of the common branches must be sufficient to entitle them to a teacher's certificate of good grade.

Applicants from graded schools in cities and towns are required to present a certificate of good standing in school, both in scholarship and deportment.

This Institution is not designed to be a reformatory, and applicants who are known to have bad habits, will not be admitted. The admission of such persons might soon result in their suspension.

SUMMER NORMAL SCHOOL.

The second annual session of the Summer Normal School, for the special training of teachers, and those desiring to teach, will begin Monday, June 20, 1881, and continue six weeks, under the management of Prof. E. E. Smith. This is an individual enterprise (securing the use of the rooms and admirable appliances for illustration, of the University), in which Prof. Smith will have able assistance. The course of instruction will include (1) a thorough and practical review of the branches involved in and associated with work in the Public Schools; (2) didactics, or the science and art of teaching, embracing lectures on education, its character, objects, etc., school discipline, school management, the recitation, habits and qualifications of teachers, etc. The third annual session will open about July 1, 1882. For further information, address Prof. E. E. Smith, LaFayette, Indiana.

ADVANTAGES.

Purdue University is located about one mile west of the city of LaFayette, and less than half a mile from the village of Chauncey. The grounds are over one hundred feet above high-water mark in the Wabash river, and the buildings command a fine view of the city, valley, and surrounding country. LaFayette is situated at the intersection of four railroad lines, extending respectively from Cincinnati and Indianapolis to Chicago, from St. Louis to Toledo, from Louisville, Ky., to Michigan City, and from Bloomington, Ill., to Fremont, Ohio. These roads give the University direct railroad connection with all parts of the State.

GROUNDS.

The campus and gardens contain twenty acres, bounded on the south and east by wide avenues bordered with walks and trees, and on the north and west by "wind-brakes" of pines and hemlocks. The grounds are laid out with convenient drives and walks, bordered with hedges and choice trees, and the lawns are ornamented with shrubbery and flowers.

BUILDINGS.

The main college building, "University Hall," has two fronts, each 136 feet in length, and is divided by two hallways into three sections. The central portion is five stories high, including the basement and mansard stories, and the two ends are each four stories high, with an attic. The ends of the two hall transepts are surmounted, three by a turret and one by a tower or belfry. The basement is stone and the upper stories brick, with stone trimmings.

The building contains a chapel, or assembly hall, 56 by 41 feet, with galleries on three sides; an academy hall, 56 by 41 feet; two society halls, each 51 by 29 feet; a library room, 41 by 27 feet; three cabinet rooms, each 41 by 27 feet; eight recitation rooms, each 29 by 25 feet; two well lighted basement rooms, each 29 by 25 feet; and two suites of lunch and toilet rooms.

The other buildings in use are the Boarding House, the Young Men's Dormitory, the Laboratory, the Military Hall, the Boiler and Gas House, and the Peirce Conservatory.

The Boarding House contains a spacious dining room, a kitchen, laundry, etc., and rooms for family and servants; also two suites of rooms for members of the Faculty, fourteen rooms for the occupancy of young ladies, and a complete suite of rooms for the School of Industrial Art, including a large lecture hall, four smaller rooms for shading, modeling in clay, office and library, etc., and two basement rooms for special work.

The Dormitory is four stories high. The second, third and fourth stories contain each eight suites of rooms, each suite consisting of a study room and two bed rooms with closets, and the first story contains four suites of rooms, each consisting of a study room and one bed room, and six rooms, each about the size of a study room. If each student is allowed a bed room, the Dormitory will accommodate about sixty students. The building is divided into two sections, and each section has a bath room on each floor.

The first story of the Laboratory contains the Chemical Laboratory, with a complete suite of rooms; the second story affords ample accommodations for the department of Physics; and the basement contains a large mechanics shop, two forge rooms, a lumber room, and a room for assaying, smelting, etc. An addition will be made to the building the present year to afford an additional room for the School of Mechanics.

The Boiler and Gas house contains four large steam boilers for heating, and two gas retorts for lighting the entire group of buildings. It also contains the engines which are used for pumping water and for supplying needed power for driving the machinery in the mechanics shop.

The Military Hall contains a spacious drill-room, and smaller rooms for storing arms, etc. The drill-room is also well adapted for use as a gymnasium.

The Green-house, built in 1879, is a neat structure, about fifty by twenty feet, with addition for boiler and fuel, and for potting purposes. It was built from a donation by M. L. Peirce, Esq., the Treasurer of the University, and is called the "Peirce Conservatory."

The engineer's house, gas refinery, stable, etc., are located on the west side of the grounds. The farm house, barn, granary, and other farm buildings are located on the one hundred acres situated south of the campus, on the opposite side of the street.

A suitable building for the Experimental Station is to be constructed the present year.

CHEMICAL AND PHYSICAL APPARATUS.

The University has a good supply of chemical apparatus and a well-equipped Laboratory. Each student is furnished with a full set of apparatus and the necessary chemicals for all his work and experiments, and he is held responsible for their proper use. He is charged with actual breakage and damage. For illustrating the first principles of chemistry, a complete set of Hoffman's apparatus is provided. A fine lantern for projection, with electric light, is used to throw diagrams and formulas on the screen.

The physical apparatus has been selected with more special reference to experimental lectures, and is fullest in the departments of electricity and magneto-electricity. It includes a full set of telegraphic apparatus, two frictional electric machines, batteries of Leyden jars, etc. The celebrated Gramme machine furnishes an inexhaustible source of electricity for experimental and illuminating purposes. In the department of heat there is a Melloni's apparatus, with all its accessories, and in that of sound a Koenig's Phonautograph, a sonometer, and a set of organ pipes.

CABINETS AND MUSEUM.

The Geological Cabinet embraces the following materials:

1. MINERALS.—The collection of minerals has been largely increased by purchase and exchange during the past year. The ores of gold, silver, lead and iron, with their associated minerals are well represented. The "Levering Collection" has also been increased by further donations from Col. John Levering, LaFayette.

2. FOSSILS.—Specimens illustrating the life of the Silurian, Devonian and Carboniferous ages. Among the rest a fine set of Crinoids from the Sub-carboniferous beds at Crawfordsville, and a number of beautifully preserved ferns from the Coal measures of Indiana and Illinois, are to be noted.

3. ARCHÆOLOGY.—An interesting collection of stone and flint implements of the prehistoric inhabitants of this country.

The Zoological Museum embraces the following collections:

1. MARINE INVERTEBRATES.—A series of 144 species, collected by the United States Fish Commission on the Atlantic coast, and presented by the Smithsonian Institution.

2. CONCHOLOGY.—A good collection of land, marine and fluviatile shells, the latter chiefly of this vicinity, illustrating the form and growth of typical species of each group.

ENTOMOLOGY.—The "Scheuch Collection," consisting of twenty-seven cases of Coleoptera, including seven thousand specimens and over two thousand species, collected chiefly in Southern Europe, elegantly mounted and correctly labeled, presented by Fred. Scheuch, Esq., of La-Fayette, now United States Consul at Barcelona, Spain. Fourteen cases collected in this vicinity, mounted and named. Several cases of German Lepidoptera were purchased during the year.

4. FISHES.—By the kindness of the Smithsonian Institution we have received sets of fishes collected on the Atlantic and Pacific slopes, in all one hundred and eleven species.

5. REPTILES AND AMPHIBIANS.—A collection of these two classes preserved in alcohol, mostly species of this locality.

6. ORNITHOLOGY.—About two hundred mounted birds, mostly from Indiana, and nearly one hundred skins suitable for study.

7. MAMMALS.—Several articulated skeletons, illustrating the orders *Ungulata* and *Carnivora.* Crania, teeth, and bones of other orders.

The Botanical Collection consists of—

1. An herbarium of over 2,000 species, mounted and labeled. It is specially full in the sets of grasses and sedges of this State, and ferns of the United States, each being nearly complete. A private herbarium of 1,500 species is also accessible to students.

2. A set of 300 economic products of plants, presented by Dr. G. L. Goodale, Director of Botanic Gardens, Cambridge, Mass.

3. A set of native woods of this and adjoining counties, seeds, sections, and moist preparations.

The Peirce Conservatory furnishes an abundance of fresh material for illustration.

APPARATUS.—The department of Natural History is supplied with both simple and compound microscopes, reagents and mounting materials. There are nineteen dissecting microscopes; one Beck's Improved Dissector with two Coddington lenses (¾ and ½ inch); and eighteen of Bausch and Lomb's "Compact" dissecting microscopes, with two single lenses ($\frac{3}{4}$ and $\frac{1}{2}$ inch). There are sixteen compound microscopes. One is Beck's "Large Best" Monocular, with a battery of objectives from 3 in. to 1-20th, and a full set of accessories; the remainder are Beck's New Economic stands, furnished with two oculars (Nos. 1 and 3) and two objectives, $\frac{2}{3}$ and $\frac{1}{6}$.

For purposes of projection there is a first-class lantern, furnished with a large assortment of slides illustrating Human Anatomy. This is convertible in a few moments into a projecting microscope by means of which the image of any transparent microscopic preparation can be thrown on the screen. Light is furnished by the electric lamp.

INDUSTRIAL ART.

This department is supplied with (1) flat copies for outline drawing; (2) flat copies in light and shade for crayon work; (3) colored copies for water color painting; (4) flat copies for carpentry, architectural, and machine drawing; (5) charts to illustrate the botanical analysis of plants for purposes of design; (6) charts to illustrate analysis of historical ornament; (7) charts to illustrate harmony and contrast of color; (8) a great variety of geometrical solids, vases, and casts for model drawing; (9) samples of prints and other textile fabrics, wall paper, carpets, etc., to illustrate the application of design to manufactures; (10) appliances for modeling in clay; (11) a potter's wheel for turning pottery; (12) a kiln for burning small clay models and pieces of pottery; (13) an excellent selection of casts from ancient and modern sculpture, recently purchased, including busts of the Venus de Milo, Apollo de Belvidere, Diana, Psyche, Paris, Ajax, Michael Angelo, Raphael, and medium sized statues of Minerva, Psyche, Flora, and M. Angelo's Moses; (14) twelve very fine photographs of western scenery, taken under the supervision of the U. S.

War Department, presented by Mr. James R. Pigman, of LaFayette. The Library also contains a number of very valuable books of reference and journals for the use of art students.

AGRICULTURE AND HORTICULTURE.

The means of illustration and practice in this department include the model farm, containing about one hundred and fifty acres, stocked with Jersey cattle, Clydesdale and Norman horses, and Essex and Berkshire swine, the "Experimental Station" (a field of ten acres), a full set of meteorological instruments, purchased through the United States Signal Service Office, the campus, nursery and orchards, and the Peirce Conservatory, well filled with choice plants. The conservatory and nursery are in charge of a practical horticulturist and florist.

MECHANICS.

The School of Mechanics is well equipped with tools and machines for doing a large variety of work in wood and iron; both tools and machines are of improved pattern and first-class in every respect. The machinery is driven by steam power from the engine-house. The shop contains five benches for wood working, with five complete sets of carpenter tools, five power turning lathes, with cutting tools for same; two scroll saws, and other tools for a large scope of work.

The machines, tools, and fixtures for iron work, include (1) benches, fitted with Parker vises, sets of files, chisels, hammers, hardened steel squares, gauges, calipers and other tools needed for all kinds of bench-work in iron; (2) forges of improved pattern, with air blast furnished by a Sturtevant blower, driven by steam power, and all the common smithing tools, such as anvils, hammers, tongs, chisels, etc.; (3) an engine or machine lathe, a machine planer, of the best pattern, a vertical drill press, an emery grinder and grind-stone, with a supply of small tools—

chucks, drills, taps, and dies, and lathe and planer cutting tools, etc. Additional tools and machinery will be added before the beginning of next year.

MATHEMATICS.

The department of Mathematics is supplied with one twenty-inch terrestial globe, one twenty-inch celestial globe, an engineer's level, a theodolite, and a telescope with a 4½ inch object-glass and a focal distance of 6 feet, made specially for the University, by Alvan Clark & Sons, Boston, Mass.

THE ACADEMY.

The University Academy is fully supplied with reference books, charts, maps, microscopes, etc. Among these are included a Universal Biographical Dictionary, a Universal Gazetteer, two of Webster's Unabridged Dictionaries (latest edition), Gould Brown's Grammar of English Grammars, Zell's Encyclopedia—all kept convenient for immediate use. There have been added to its apparatus this year complete sets of Guyot's largest physical maps and Cutter's largest charts of human and comparative anatomy. To the library, for its use, there has also been added, a complete set (4 volumes) of Bryant's History of the United States. The other departments of the University and the library furnish abundant means for practical illustration in every line of study pursued in this department.

LIBRARY.

The Library occupies a commodious and well-lighted room, appropriately fitted and furnished. It contains a valuable collection of books of reference in each department, and a goodly number of miscellaneous works, many of standard value. The number of volumes in the Library January 1, 1880, exclusive of pamphlets and unbound works, was 1,803. The number, January 1, 1881, was

2,065. The reading room is supplied with the following journals and periodicals, viz: Nature, Chemical News, Chemisches Central-Blatt, Science, American Monthly Microscopical Journal, American Bee Journal, Trimen's Journal of Botany, Botanical Gazette, American Journal of Science, American Naturalist, Gardener's Monthly, Country Gentleman, American Agriculturist, National Live Stock Journal, Agricultural Gazette, Indiana Farmer, American Cultivator, Kentucky Live Stock Record, Scientific American and Supplement, Poultry World, Art Amateur, Art Interchange, Magazine of Art, The Workshop, Ueber Land und Meer, Popular Science Monthly, Cassell's Family Magazine, Harper's Monthly, Harper's Weekly, Scribner's Monthly, Atlantic Monthly, Littell's Living Age, North American Review, Contemporary Review, The Athenæum, The Nation, London Weekly Times, New York Weekly Herald, the Watchman, the New England Journal of Education, Indiana School Journal, and several daily papers.

The works donated to the Library in the present year include Smith's Mechanics, and the Life and Poems of Sarah T. Bolton, by Professor Herron; Vol. X. of Congressional Record, in five parts, Commercial Relations of the United States, United States International Exhibition, 1876, in nine volumes, Messages and Documents, five volumes, and Commercial Relations, with Supplement, 1879, by Hon. G. S. Orth, M. C.; Wentworth's Geometry, by the publishers (Ginn & Heath); Lyman's Historical Chart, by Dr. W. T. Lawson; Report of Chief of Ordnance, 1880, by S. D. Bennett; Michigan Pomological Society's Report, by Professor Ingersoll; seven volumes of Transactions of the Michigan State Agricultural Society, by Prof. W. J. Beal, of Michigan Agricultural College; and Transactions of the Illinois State Horticultural Society, by George Vestal.

SOCIETIES.

Three literary societies are open to students—the Irving Literary Society, the Philalethean Society, and the Carlyle Society, the first and third for young men, and the second for young women. The exercises consist principally of essays, declamations, debates, and orations, and are an efficient means of improvement in writing and speaking. The hall of the Irving Society is neatly carpeted and furnished.

A branch of the Y. M. C. Association was organized by the students early in the year. It has enrolled forty-seven members, twenty six being active members. The association has held regular meetings weekly, and has conducted the chapel services on each alternate Sunday.

MILITARY TACTICS.

Instruction in Military Tactics is provided for by the law of Congress endowing this Institution, and for several years such instruction has been given. The joining of the company is *voluntary*, but, when a student becomes a cadet, he is held to regular attendance and military discipline during the period of his enlistment, which shall be for the college year. For unexcused absence or misconduct, a cadet may, at the Captain's discretion, be suspended or expelled from the company. The company is supplied with the best breech-loading rifles, with complete accoutrements. Upton's Tactics is used as a text-book. Members of the company are required to provide themselves with a uniform consisting of gray trowsers and cap and blue coat, and costing $14.65. The uniform is worn by the cadets as a college suit, and its purchase may be made a true economy in dress. Students should not purchase the suit until they enter the company.

EXPENSES, BOARDING, ETC.

EXPENSES.

The expenses incurred in attending Purdue University are very low. It is believed that few institutions afford equal advantages, at as low a cost.

The charges for the year 1881-82 will be as follows:

Entrance fee in College, per year	$5 00
Entrance fee in Academy, per term, $2.00; per year	5 00
Incidental fee in all departments, per term	3 00
Chemicals and gas for general course in Chemistry, per term	5 00
Matriculation fee in Special Schools	10 00
Chemicals and gas for special course in Chemistry, per term	5 00
Table board, per week (at Boarding House)	2 50
Room-rent, heat and light, per week	50
Washing, per dozen, (at Boarding House) not exceeding	75

From the above it is seen that a student's expenses for thirty-eight weeks in the Academy or College will be as follows:

Entrance and incidental fees	$14 00
Table board	95 00
Room, heat, and light	19 00
Washing, about	12 50
Total for the year, about	$140 50

All bills must be paid *in advance*, entrance and incidental fees at the beginning of the term or year, and room-rent at the beginning of each term. A pro rata part of all fees paid in advance will be refunded to students who are withdrawn on account of sickness.

Students taking a course in Chemistry are required to deposit with the Registrar five dollars a term in advance as a breakage fund. The money that is not used will be refunded at the close of the term.

YOUNG MEN'S DORMITORY.

The young men occupying rooms in the Dormitory, are required to keep them in good order, and to observe all other rules governing their occupancy. A failure to observe such rules, or other disorderly conduct, forfeits a student's right to a room. No firearms are permitted to be kept in rooms, and members of the Freshman Class, and of the Academy, are not permitted to visit the city of LaFayette in the evening, except by permission. The occupants of rooms are held responsible for all injury to the same or to furniture and fixtures therein, and all gas burned after ten o'clock is charged extra. As a condition of occupying a room, a student must deposit with the Registrar five dollars, as a breakage and extra-gas fund. When he withdraws from the Dormitory, or at the close of the year, so much of this money as is not required to pay charges will be refunded.

Each suite of rooms in the Dormitory is furnished with bedsteads, washstands and sets, and tables and chairs. Mattresses and bedding, towels, soap, mirrors, brooms, etc., are furnished by students. Young men occupying rooms may procure table-board at the Boarding House, or elsewhere, as they may prefer, but self-boarding in the Dormitory is not allowed. Boarders will not be received at the Boarding House for less than a term, but permission to leave will be granted, if the board is not satisfactory.

THE LADIES' HALL.

The young ladies occupying rooms in the Ladies' Hall, are required to keep them in good order, and to observe all rules governing their occupancy. Gas consumed after ten o'clock, and the cleaning of rooms, while occupied, will be charged extra. The rooms are neatly carpeted, and are furnished with bedsteads and matresses, washstands and sets, tables and chairs. The occupants furnish bedding, towels, mirrors, etc. The young ladies who occupy rooms are under the personal supervision of the lady member of the faculty. Only twenty young ladies can be accommodated with rooms.

PRIVATE BOARD.

Students who may not wish to board in the University, can obtain board in private families in Chauncey, at reasonable rates. Good accommodations for self-boarding, or for club-boarding, can also be secured in Chauncey, and the cost of board, not including room, may thus be reduced to about $2 per week. A good sidewalk extends from the University to the village.

STUDENTS APPOINTED BY COUNTY COMMISSIONERS.

A law passed March 12, 1877, gives the Board of Commissioners of each county of Indiana the authority to appoint two students to Purdue University, and the students thus appointed are exempt from the payment of entrance and incidental fees, and the regular charges for room, heat, and light, The reduction thus provided for amounts to $33 a year, or about one fifth of all necessary expenses of a student. Sixty of the students in attendance the present year were appointed. See page 64.

WORK.

The farm is cultivated with improved implements, and hence there is but little work which can be done by students. The teams must be handled and cared for by regular hands. About the only assistance which students can render is in harvesting the fall crops, and in the care of stock, and this work, as well as that needed on the University grounds, in the nursery, orchard, and green-house, and in the experimental field, is chiefly done by *the students taking the Agricultural Course.* The amount of other work to be done by students is very limited, and no one should come to the University depending upon work, if he has not made a successful application for it.

APPLICATIONS.

Application for admission to any department of the University should be made to the President, and prior to the opening of a year or term, when this is practicable. In making application by letter, students are requested to give their age, the studies which they have pursued, and a general idea of their attainments. A catalogue will be sent to any address, on application with directions. Address, President of Purdue University, LaFayette, Indiana.

CALENDAR FOR 1881-82.

FIRST TERM.

First Term, sixteen weeks, begins Thursday, September 8, 1881, and ends Thursday, December 22, 1881.

SECOND TERM.

Second Term, twelve weeks, begins Thursday, January 5, 1882, and ends Thursday, March 23, 1882.

THIRD TERM.

Third Term, eleven weeks, begins Tuesday, March 28, and ends Thursday, June 8, 1882.

COMMENCEMENT, THURSDAY, JUNE 8, 1882.

Examinations of applicants for admission to the University will be held June 7th and 8th, and September 6th and 7th, 1881.

An examination of applicants for admission to the Freshman class or to the Academy, will be held in the several counties of the State, under the direction of County Superintendents, the last Saturday of July, 1881. See pp. 26, 40.

RULES AND REGULATIONS.

GENERAL.

1. Students who have not been regularly admitted by the Faculty or the President, shall not be received into any class or department of the University by any professor or instructor, and no professor or instructor shall use the rooms, appliances or materials, belonging to the University, to give instruction to private students, except by permission of the Board of Trustees.

2. No Society is permitted to be organized by the students, except by consent of the Faculty, and the public exercises of the societies thus organized are subject in time, place, and character to the approval of the Faculty. The time fixed for the annual exhibitions or entertainments of the societies now organized is the last week of the second or winter term, the Irving having the choice of evenings in 1881, and the Philalethean in 1882, and the Carlyle in 1883; and the time for the annual exhibition of the Junior class is the last week of the first or fall term.

3. No student is permitted to join or be connected as a member, or otherwise, with any so-called Greek or other college secret society; and, as a condition of admission to the University, or promotion therein, each student is required to give a written pledge that he or she will observe this regulation. A violation of this regulation and pledge forfeits the right of any student to class promotion at the end of the year and to an honorable dismissal.

4. Students who desire to be absent from any recitation, or other exercise, are required to obtain leave of absence. Students absent without previous permission, can only be excused by the President or the Faculty, and they are permitted to recite but twice in any class before producing a written statement that their absence has been reported to the President. The absence of Academy students must be reported to and excused by the Principal.

5. The frequenting or visiting of saloons, or other places where intoxicating liquors are sold, is forbidden, and any student who violates this rule may be suspended or expelled from the University. Smoking in or about the University buildings, or on the grounds, is forbidden.

CLASSIFICATION OF STUDENTS.

1. Students shall be admitted to the College classes by vote of the College Faculty, and no student shall be admitted to any special school, or to any special or irregular course of study except on presentation of an entrance certificate, signed by the President.

2. Students admitted to the College are not permitted to take an irregular or elective course in the Freshman or the Sophomore year, but they are required to pursue one of the three regular courses of study, viz: the Scientific Course, or the Agricultural Course, or the Mechanical Course. Applicants wishing to take a special course in one or two Special Schools will be admitted if they are prepared to do the required work. Regular students are not permitted to take both Latin and German in the Freshman and Sophomore years, or to take any special course in advance of their attainments in the regular course.

3. A student who is pursuing all, or all but one of the lines of study in any one of the prescribed courses for a given year, shall be classed as Freshman, Sophomore, Junior, or Senior, as the case may be. By a "line of study" in this regulation is meant science, or mathematics, or language, or English, or history, or industrial drawing, or agriculture and horticulture, or mechanics.

4. When a student is pursuing all the studies of his class in any prescribed course, he shall be considered as *regular;* but when he is behind his class in any study or studies to the extent in the aggregate of one-half year's work in a line of study, he shall be considered *irregular;* provided, that if a student, who is behind his class in any study, is in advance of it in other studies of the course, so that his advanced attainments are a full offset to his deficiencies, such student shall be considered regular.

5. When a student is conditioned to such an extent that the removal of the conditions will, in the judgment of the Faculty, require one-fourth of his time for one year, such student shall be ranked as a member of the next lower class until such conditions are removed, and no student who has uncanceled conditions in Junior or Senior studies, shall receive a degree.

6. Students shall be classified in the Annual Register in accordance with their classification at the beginning of the year, or at the time of entrance if subsequently admitted; provided, that if conditions are met by students, or their classification is changed by the Faculty prior to the third term, such classification shall be used in the Register.

LIBRARY AND READING ROOM.

1. The Library shall be open to members of the Faculty, students, and employes of the University for reading and study, at such hours as the Faculty may prescribe, and, in these hours' conversation or other conduct which may divert attention, or otherwise annoy, shall not be allowed.

2. Any one wishing any book or periodical (dictionaries excepted) must apply to the Librarian for it, and, before leaving the room, the same must be returned to the Librarian, if not regularly drawn.

3. Books not marked "Reference Book," may be drawn from the Library and retained one week, and then may be redrawn for another week, but no book can be kept by one person longer than two weeks.

4. If a book is not returned within the week for which it was drawn, the holder shall be subject to a fine of ten cents; if not returned within two weeks from the time it was drawn, to a fine of twenty-five cents; if not returned within a month, to a fine equal to the price of the book; and, if lost, to a fine of fifty per cent more than the cost of replacing it.

5. Reference books, current periodicals, and papers can not be taken from the Library room except by special permission of the Librarian, and then only from the closing of the Library to the first succeeding hour of opening.

6. A repeated violation of any of the foregoing regulations, or other rules, which may from time to time be prescribed, shall forfeit a student's right to the use of the Library for such time as may be designated.

7. It is the duty of the Librarian to enforce the above regulations.

HISTORICAL SKETCH OF PURDUE UNIVERSITY.

Purdue University had its origin in the Act of Congress of July 2, 1862, which "donated public lands to the several States and Territories which may provide Colleges for the benefit of Agriculture and the Mechanic Arts." The national grant was accepted by the State of Indiana, March 6, 1865, and a Board of Trustees, with the corporate name of "The Trustees of the Indiana Agricultural College," was organized for the management of the trust funds. This Board consisted of Governor Morton (*ex-officio* President), Alfred Pollard, of Gibson, Smith Vawter, of Jennings, Henry Taylor, of Tippecanoe, and Lewis Burke, of Wayne. Prior to the first meeting of the Board, held October 20, 1865, Mr. Pollard removed from the State, and Isaac Jenkinson, of Allen, was elected his successor. John J. Hayden, of Marion, was elected Secretary of the Board, and James E. Reeves, of Wayne, Treasurer. Mr. Reeves resigned May 1, 1866, and was succeeded by E. B. Martindale, of Indianapolis. The Board so constituted remained without a change in membership until March 7, 1870.

It was this Board that received the land scrip, amounting to 390,000 acres, and, April 9, 1867, sold it for $212,238.50. By careful and wise management, this endowment fund has been increased to $340,000, invested in a non-negotiable Indiana State bond, bearing five per cent interest, payable quarterly. This Board also located the University, as stated below.

The act of 1865 made no provision for the location or the organization of the College. Governor Morton's special message to the General Assembly was followed by a strong rivalry between several places, desiring the College, and the general sessions of 1863, '65, '67 and '69 failed to settle the location. At the special session in 1869, an act was passed, May 6, accepting a donation of $150,000 by John Purdue, on specified conditions; a donation of one hundred acres of land, appurtenant to the institution, by citizens of Chauncey; a donation of $50,000 by Tippecanoe county; and donations by the Trustees of the Battle Ground Institute, and by the Trustees of the Battle Ground Institute of the M. E. Church, both made on condition that the College be located at Battle Ground. This act located the institution in Tippecanoe county, at such point as the Trustees might determine before January 1, 1870, gave it the name of Purdue University, and provided for its organization and management. The location of the University was definitely fixed by the Trustees, December 22, 1869.

In March, 1870 ,the Board was partially reorganized. M. L. Peirce, of LaFayette, succeeded Mr. Jenkinson; Rev. Thomas Bowman, of Greencastle, Mr. Vawter; Dr. Joseph F. Tuttle, of Crawfordsville, Mr. Lewis Burke (resigned); and John Purdue became a Trustee by the act of the Legislature. Mr. Peirce was elected both Secretary and Treasurer, succeeding Messrs. Hayden and Martindale (resigned). In November, 1870, Dr. Tuttle and Henry Taylor resigned, and were respectively succeeded by John R. Coffroth and John A. Stein, both of LaFayette. In January, 1871, Mr. Stein was elected Secretary of the Board, and, by subsequent re-elections, Mr. Peirce has been continued as Treasurer and Mr. Stein as Secretary.

An act passed January 31, 1871, increased the number of Trustees to nine, including the Governor, *ex-officio* member and President of the Board, and provided that three of the Trustees should be members of the State Board of Agriculture, to be appointed by the Governor, on the recommendation of the State Board. The three Trustees appointed under this law, were I. D. G. Nelson, of Fort Wayne, John Sutherland, of Laporte, and L. A. Burke, of New Harmony. The Board was constituted as follows: Governor Baker, *ex-officio* President, John A. Stein, Secretary, Martin L. Peirce, Treasurer, John Purdue, John R. Coffroth, I. D. G. Nelson, Thomas Bowman, John Sutherland, and L. A. Burke.

This Board, with the changes in its membership hereafter noticed, purchased the present site of the University, planned and constructed the buildings (the main building excepted), and made provision for the opening of the institution.

Gov. Hendricks succeeded Gov. Baker in 1873. Dr. Bowman resigned in May, 1873, and was succeeded by Judge H. P. Biddle, of Logansport, who resigned in November following, and was succeeded by Col. B. C. Shaw, of Indianapolis, who resigned in October, 1874. Mr. Nelson resigned in 1874, and was succeeded by Austin B. Claypool, of Connersville. Mr. Burke resigned in June, 1874, to accept the position of Farm Superintendent.

THE OPENING OF THE UNIVERSITY.

In 1872, the Board expected to open the University the following year, and Prof. Richard Owen, of the State University, at Bloomington, was elected President (August 13, 1872), and Prof. John S. Hougham was appointed to a professorship. President Owen was to enter upon his duties upon receiving a three months' notice, but Prof. Hougham entered at once into the service of the Board.

President Owen resigned March 10, 1874, and Supt. A. C. Shortridge, of Indianapolis, was elected his successor June 12, 1874. To comply with the Act of Congress, which required the institution to be opened as early as July, 1874, Prof. Hougham took charge of a class March 2, 1874, and gave instruction until June. The University was formally opened September 17, 1874, with the following Faculty: A. C. Shortridge, President; John S. Hougham, Professor of Physics and Industrial Mechanics; W. B. Morgan, Professor of Mathematics and Engineering; John Hussey, Professor of Botany and Horticulture; H. W. Wiley, Professor of Chemistry, and Eli F. Brown, Professor of English Literature and Drawing.

The plan of organization adopted by the Board of Trustees was based on the theory of special education, and the instruction of the University was distributed among the following Special Schools: I. School of Natural Science, including (*a*) Physics and Industrial Mechanics, (*b*) Chemistry, (*c*) Natural History; II. School of Engineering, including (*a*) Civil Engineering, (*b*) Mining Engineering, (*c*) Architecture; III. School of Agriculture, including (*a*) Theoretical and Practical Agriculture, (*b*) Horticulture, (*c*) Veterinary Science; IV. School of Military Science. Detailed courses of study were adopted and announced in Agriculture, Chemistry, Engineering, and Physics and Mechanical Engineering.

The University was conducted on this plan of special education for two years, but there seemed to be little demand for the special courses of instruction provided. The only special students received entered the School of Chemistry, and most of these were in preparatory branches in other studies. Nearly all the students entered the preparatory classes.

At the close of the first year Mrs. Sarah A. Oren was appointed Professor of Botany, and Professor Hussey was transferred to the added chair of Latin and Modern Languages.

An act passed by the Legislature March 9, 1875, provided for the reorganization of the Board of Trustees. It reduced the number of Trustees to six, two to be nominated by the State Board of Agriculture, one by the State Board of Horticulture, and three to be selected and appointed by the Governor. It also provided that the Secretary and Treasurer should not be members of the Board. The law took effect August 24, 1875, and the Board was reorganized August 31, 1875, as follows:

JOHN R. COFFROTH, President, appointed by the Governor.
MAHLON D. MANSON, appointed by the Governor.
REUBEN WELLS, appointed by the Governor.
JOHN SUTHERLAND, nominated by the State Board of Agriculture.
ROBERT P. HAYNES, nominated by the State Board of Agriculture.
JOSEPH C. RATLIFF, nominated by the State Horticultural Society.

President Shortridge resigned November 5, 1875, to take effect December 31, 1875, and Professor Hougham became Acting President. E. E. White was elected President February 17, 1876, and entered on the duties of the office May 1, 1876.

REORGANIZATION.

At the meeting of the Board of Trustees, held in June, 1876, President White submitted the plan of organization on which the University has since been conducted. The plan was unanimously approved by the Board.

The University was divided into three departments—the College of General Science, Special Schools of Science and Industry, and the University Academy—as described above in the Register. The College was first organized with but one course of study, the Scientific Course, so arranged as to be a general preparation, not only for all industrial pursuits, but for the courses in the Special Schools.

In 1879 the College was made to embrace three courses—the Scientific Course, the Agricultural Course, and the Mechanical Course—and the Special School of Agriculture, with its "Experimental Station," and the School of Mechanics, with its workshop, were put into successful operation. It required four years "to work out" the plan outlined in 1876, and described in preceding pages.

The Faculty, as reorganized in 1876, was constituted as follows: E. E. White, President and Professor of English Literature; H. W. Wiley, Professor of Chemistry and Physics; John Hussey, Professor of the Natural History Sciences; David G. Herron, Professor of Mathematics and Engineering; Edward P. Morris, Instructor in Latin and History; Walter L. Dean, Instructor in Industrial Art; R. F. H. Weyher, Instructor in German; George R. Chase, Principal of the Academy, and Sarah A. Oren, Associate Principal of the Academy.

In 1877 Charles E. Lambert succeeded Professor Morris; Langdon S. Thompson succeeded Professor Dean, and Edward E. Smith succeeded Principal Chase. In 1878 Olivia T. Alderman succeeded Mrs. Oren; and in 1879 John A. Maxwell succeeded Professor Lambert. In 1879 Charles L. Ingersoll was appointed Professor of Agriculture and Horticulture, and Wm. F. M. Goss, Instructor in Mechanics. In September, 1880, Charles R. Barnes succeeded Professor Hussey, resigned, and Miss Edna D. Baker succeeded Mrs. Herron, *nee* Miss Alderman, resigned. Miss Eulora Miller was appointed Librarian in 1878, and reappointed in 1879; and in August, 1880, Moses C. Stevens was appointed Registrar and Librarian.

The following changes have occurred in the Board of Trustees, since the reorganization, in 1875: Hon. John R. Coffroth resigned December 21, 1877, and was succeeded by John C. Dobelbower, of LaFayette. Gen. M. D. Manson succeeded Judge Coffroth as President of the Board. Gen. Manson resigned January 20, 1879, to enter on the duties of Auditor of State, and John S. Williams, of LaFayette, was appointed his successor. Mr. Sutherland succeeded General Manson as President of the Board. In March, 1881, William H. Ragan, of Hendricks county, succeeded Mr. Sutherland, and Jacob Mutz, of Johnson county, succeeded Mr. Haynes. In April, 1881, Charles R. Peddle, of Vigo county, succeeded Mr. Wells, resigned.

The Act of 1865 provided that if Mr. Purdue should cease to be a member of the Board, he should be continued as an Advisory Trustee during his lifetime. His trusteeship expired in 1875, and he then served the University as an Advisory Trustee until his death, which occurred September 12, 1876.

STATE APPROPRIATIONS.

In 1873 the Legislature made an appropriation of $60,000 to Purdue University, for the erection of a college building, the purchase of apparatus, the improvement of grounds, and other purposes--$30,000 to be paid June 1, 1873, and $30,000 June 1, 1874.

In 1875 the Legislature appropriated $10,000 for physical, mechanical, chemical and engineering apparatus; $4,000 for farm-house and barn; $4,000 for stock, agricultural implements, farming utensils, etc.; and $2,000 for library, etc. One half of each appropriation was paid in 1875 and one half in 1876.

In 1877 the Legislature appropriated $5,000 for payment of indebtedness incurred in 1876; $4,500 for allowances to trustees and officers ($1,500 in 1877, $1,500 in 1878, and $1,500 in 1879); $5,000 for apparatus, machinery, cabinets and fixtures; $2,000 for books and periodicals; and $3,000 for stock, experiments in agriculture and improvement of grounds. One half of each of the last three appropriations was paid in 1877 and one half in 1878.

In 1879 $4,000 was appropriated for current expenses; $4,000 for machinery and improvements, and for School of Agriculture, including agricultural experiments, and $1,000 for library—one half of each appropriation to be paid in 1879 and one half in 1880.

In 1881 the Legislature appropriated $20,000 for the fiscal year beginning Nov. 1, 1881, and $20,000 for the fiscal year beginning Nov. 1, 1882, each appropriation to be expended for University purposes, at the discretion of the Board of Trustees.

STUDENTS' LAW.

AN ACT authorizing the appointment of students to Purdue University by the Board of Commissioners of each county, and to provide for the admittance of such scholars, and defining their privileges therein.

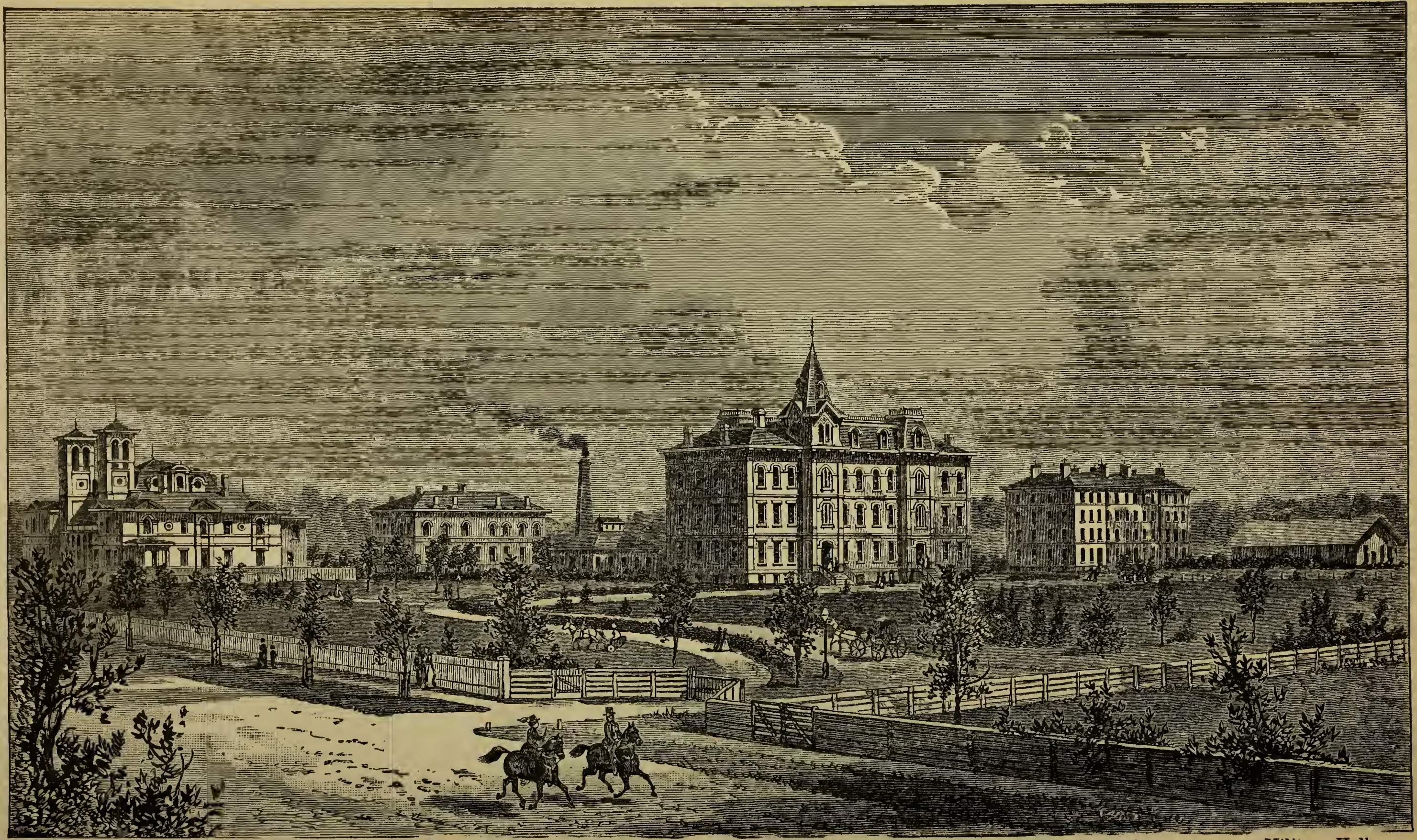
SECTION 1. *Be it enacted by the General Assembly of the State of Indiana,* That the Board of Commissioners of each county in this State may appoint, in such manner as they may choose, two students or scholars to Purdue University, who shall be entitled to enter, remain, and receive instruction in the same, upon the same conditions, qualifications and regulations prescribed for other applicants for admission to, or scholars in said University: *Provided, however,* That every student admitted to said University by appointment by virtue of this act, shall in no wise be chargeable for room, light, heat, water, tuition, janitor or matriculation fees, and said students shall be entitled in the order of admittance to any room in the University, then vacant and designed for the habitation or occupancy of a student, and such student so admitted, shall have prior right to any such room, subject to the rules of the University, over any student not appointed and admitted as aforesaid.

SEC. 2. That no more than two students at the same time, from any county, shall be entitled to admittance to said University under provisions of this act; but the Board of Commissioners of each county may, from time to time, appoint as aforesaid to any vacancy in their appointments.

SEC. 3. Whereas, an emergency exists for the immediate taking effect of this act, the same shall be in force from and after its passage.

Approved March 12, 1877.

J. D. WILLIAMS, *Governor.*


Boarding House.
Industrial Art Hall.
Ladies' Hall.
Laboratory.
Engine House.
University Hall.
Mens' Dormitory.
Military Hall.

PURDUE UNIVERSITY, LAFAYETTE, IND.

THE

EIGHTH ANNUAL REGISTER

OF

PURDUE UNIVERSITY.

LAFAYETTE, INDIANA.

1881-82.

INDIANAPOLIS:
WM. B. BURFORD, STATE PRINTER.
1882.

BOARD OF TRUSTEES.

JOSEPH C. RATLIFF	Richmond.
JOHN S. WILLIAMS	Lafayette.
WILLIAM H. RAGAN.	Clayton.
JACOB MUTZ	Edinburg.
CHARLES R. PEDDLE	Terre Haute.
ALFRED P. EDGERTON	Fort Wayne.

OFFICERS OF THE BOARD.

JOSEPH C. RATLIFF	President.
JOHN A. STEIN.	Secretary.
MARTIN L. PEIRCE	Treasurer.

AUDITING COMMITTEE.

ALFRED P. EDGERTON, JOHN S. WILLIAMS, JOHN A. STEIN.

FARM COMMITTEE.

JOHN S. WILLIAMS, JACOB MUTZ, WILLIAM H. RAGAN.

COMMITTEE ON EXPERIMENTAL AGRICULTURE AND HORTICULTURE.

WILLIAM H. RAGAN, JOSEPH C. RATLIFF, JACOB MUTZ.

COMMITTEE ON MECHANICAL DEPARTMENT.

CHARLES R. PEDDLE, ALFRED P. EDGERTON, JOSEPH C. RATLIFF.

FACULTY.

EMERSON E. WHITE, A. M., LL. D., PRESIDENT,
Professor of Intellectual Science and Political Economy.

HARVEY W. WILEY, A. M., M. D.,
Professor of Chemistry and Physics, and State Chemist.

DAVID G. HERRON, A. M., PH. D.,
Professor of Mathematics.

LANGDON S. THOMPSON,
Professor of Industrial Art, and Secretary of Faculty.

CHARLES L. INGERSOLL, M. S.,
Professor of Agriculture and Horticulture, and Farm Superintendent.

ROBERT F. H. WEYHER, A. M., *
Professor of the German Language.

JOHN A. MAXWELL, A. M.,
Professor of English and History.

WILLIAM F. M. GOSS,
Instructor in Mechanics.

CHARLES R. BARNES, A. M.,
Instructor in Botany, Zoology, and Geology.

ANNIE S. PECK, A. M.,
Instructor in Latin and Elocution.

EDWARD E. SMITH, A. B., B. S.,
Principal of the University Academy.

EDNA D. BAKER,
Instructor in Academy and Matron of Ladies' Hall.

LIEUT. W. R. HAMILTON, U. S. A.,
Instructor in Military Tactics.

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*Died December 20, 1881, after an illness of several months.

OTHER OFFICERS.

MOSES C. STEVENS,
Registrar and Librarian.

GUILFORD L. SPENCER, B. S., A. C.,
Assistant Chemist.

N. J. BROWN,
Engineer and Superintendent of Buildings.

R. S. ELLIOTT,
Horticulturist and Gardener.

STUDENTS.

POST GRADUATES.

Henry Augustus Huston, A. B., Bowdoin '79	Lafayette.
Eulora Miller, B. S., Purdue '78	Lafayette.
Jessie Florence Thompson, B. S., Purdue '81	Lafayette.

SENIOR CLASS.

Philip Doddridge Alexander	S	Mount Vernon.
Henry Abraham Beck	S	Trader's Point.
Maggie Janet Chapman	S	Lafayette.
William Edgar Driscoll	A	Muncie.
Lew Wallace Knefler	A	Indianapolis.
Elwood Mead	S	Patriot.
Walter Henry Peters	S	Lafayette.
Edward Ewing Sickler	S	Otterbein.
Edward Sabin White	S	Lafayette.
Stephen A. D. S. Lyons	A	Boundary City.
William Edward White	S	Oxford.

JUNIOR CLASS.

Kate Luvenia Bishop	S	Peru.
Frank Vincent Broadbent	S	Marion.
John McMillen Burrow	S	Logansport.
Carrie Avaline Cory	S	Montmorency.
Elroy A Dillon	M	Danville.
Anna Laura Foster	S	Otterbein.

JUNIOR CLASS—Continued.

Charles Haskell Henderson	S	Lafayette (P. O.)
Harry Campbell Huffstetter	S	Orleans.
Harry G Lutz	M	Lafayette (P. O.)
Walter Stephens Ratliff	A	Richmond.
John Freeman Rittenhouse	S	Liberty Mills.
Otis S Roberts	A	Oxford.
Ida Virginia Smith	S	Lafayette.
George King Throckmorton	S	Romney.
Lura Louise Thompson	S	Lafayette.
James Milo Waugh	A	Colfax.

Florence May Chirum	S	Chauncey.
Michael James Collins	A	Indianapolis.
Rose Williams Foster	S	Otterbein.
Emory Calvin White	S	Allegan, Mich.

SOPHOMORE CLASS.

Mary Walters Beach	S	Lafayette.
Benjamin Lindsay Blair	S	Avon.
Joseph Evers Clapper	M	Dayton.
Kerry Hill Kendall	S	Colfax.
Charles Denman Keyes	S	Peru.
Jessie Francis Levering	S	Lafayette.
Fanny Bennett Lutz	S	Lafayette (P. O.)
Flora Jane Lutz	S	Lafayette (P. O.)
George Washington McCoy	S	Lovely Dale.
Edward Hamilton Martin	S	Lafayette.
Charles Fremont Moore	S	Montmorency.
Titus Ellsworth Price	S	Remington.
Harry Elisha Rank	S	Chauncey.
Edward Judson Roberts	S	Oxford.
Elizabeth Shoemaker	S	Chauncey.
Hattie Sheetz VanNatta	S	Fowler.

Wheatland D Williamson	M	Indianapolis.
Walter J Quick	A	Columbus,

FRESHMAN CLASS.

Phebe Elizabeth Campbell	S	Burton.
George Cheney	S	Moran.
Adaline Coppock	S	West Newton.
Perry Davis Creager	S	Portland.
Jacob Ernest Durham	S	Russellville.
Charles Henry Eldridge	S	Lafayette.
William Arthur Fankboner	S	Marion.
Philip Sheridan Fitzgerald	M	Rushville.
Edmon Grant Hall	S	Pine Village.
Maude Richmond Henderson	S	Lafayette.
Eli Kane Hoober	S	Springport.
William Summerfield Lingle, Jr.,	A	Lafayette.
Effa J Lutz	S	Lafayette (P. O.)
James Henry Lyon	S	Delphi.
Mattie McCoy	S	Rensselaer.
Ernest George Merritt	M	Indianapolis.
Charles Robert Milhous	M	Valley Mills.
J. D. Moor	A	Elizabethtown.
Robert Sigismund Parris	S	Rensselaer.
Cyrus A Pontious	S	Laketon.
Catharine Allison Porter	S	Round Grove.
Charles L Ratliff.	M	Spiceland.
Edward Newton Reser	S	Lafayette (P. O.)
Luliona Rosa	S	Chauncey.
Walter Scott	S	Oxford.
Ella May Stockton	S	Chauncey.
Allie May Surface	S	Lafayette (P. O.)
Edward Taylor	S	Lafayette.
William Mode Taylor	M	Indianapolis.
Marshall Thatcher	A	Chauncey.
Howard Vanderbilt	S	Lafayette.
Charles Heath Vinton.	S	Lafayette.
Henry Vinton	S	Lafayette.
Jennie Belle Westfall	S	Burton.
Henry Martyn Whistler	S	Rich Valley.
Sallie A Winston	S	Farmers' Inst.

FRESHMAN CLASS—Continued.

Charles Crittenden Warner	S	Rensselaer.

Lizzie Allen	S	West Newton.
Mary Alice Collins	S	Lafayette.
William Floyd Crawford	S	Whiteland.
Belle Taylor McBride	S	Lafayette.
William Noonan	A	Hartford City.
Minnie Quick	S	Columbus.
Mary Seabury Sample	S	Lafayette.
Frank M Small	S	Carmel.
Mary Evaline Swearingen	S	Chauncey.
Frank W VanNatta	A	Fowler.

I. SCHOOL OF AGRICULTURE.

The following list includes (1) the names of students pursuing the regular Agricultural Course (R.), and (2) the names of students taking a Special Course (S).

M. J. Bartholomew	S	Stockwell.
H. A. Beck	S	Trader's Point.
M. J. Collins	S	Indianapolis.
Richard Dillon	S	Fairmount.
W. E. Driscoll	R	Muncie.
L. W. Knefler	R	Indianapolis.
W. S. Lingle, Jr	R	Lafayette.
S. A. D. S. Lyons	R	Boundary City.
Elwood Mead	S	Patriot.
J. D. Moor	R	Elizabethtown.
William Noonan	R	Hartford City.
W. J. Quick	R	Columbus.
W. S. Ratliff	R	Richmond.
O. S. Roberts	R	Oxford.
Marshall Thatcher	R	Chauncey.
F. W. VanNatta	R	Fowler.
James M. Waugh	R	Colfax.

II. SCHOOL OF MECHANICS.

The following list includes (1) the names of students taking the regular Mechanical Course (R.), and (2) the names of students taking a Special Course (S). The names of nine Agricultural students who received instruction in Mechanics during the second term, are not included.

Henry A. Beck	S	Trader's Point.
Flora M. Chizum	S	Chauncey.
Joseph E. Clapper	R	Dayton.
Charles H. Eldridge	S	Lafayette.
William A. Fankboner	S	Marion.
Philip S. Fitzgerald	R	Rushville.
Rose W. Foster.	S	Otterbein.
Harry G Lutz	R	Lafayette (P.O.)
Elwood Mead	S	Patriot.
Ernest G. Merritt	R	Indianapolis.
Charles R. Milhous	R	Valley Mills.
Robert S. Parris	S	Rensselaer.
Clayton Potts	S	Indianapolis.
Minnie Quick	S	Columbus.
Charles L. Ratliff	R	Spiceland.
Edward E. Sickler	S	Otterbein.
William M. Taylor	R	Indianapolis.
Jessie F. Thompson	S	Lafayette.
Henry Vinton.	S	Lafayette.
Wheatland D. Williamson	R	Indianapolis.

III. SCHOOL OF INDUSTRIAL ART.

The special students named below include (1) students taking a special course only, and (2) students taking a special course in addition to one of the regular college courses. The whole number of different students enrolled in the drawing classes in the year was 96.

Mary W. Beach	Lafayette.
Minnie Ellis	Peru.

Rose W. Foster	Otterbein.
Carrie B. Haigh	Battle Ground.
O. T. A. Herron	Purdue University.
Jessie F. Levering	Lafayette.
Stephen A. D. S. Lyons	Boundary City.
Eulora Miller	Lafayette.
Clayton Potts	Indianapolis.
Minnie Quick	Columbus.
Edward N. Reser	Lafayette.
Edward E. Sickler	Otterbein.
Mamie Stevens	Lafayette.
Jessie F. Thompson	Lafayette.
Henry Vinton	Lafayette.
W. D. Williamson	Indianapolis.

IV. SCHOOL OF CHEMISTRY.

The following students took special courses in Chemistry, Mr. Peters taking a course in addition to the regular course. The number of Junior students taking Chemistry as a part of the regular course, was 15.

Edward J. Carnahan	Lafayette.
Alice White DeVol	Lafayette.
Henry A. Huston	Lafayette.
Walter H. Peters	Lafayette.
Wilbur F. Severson	Lafayette.
Charles A. Crampton	Moline, Ill.

V. SCHOOL OF NATURAL HISTORY.

BOTANY.

The following students took a special course in Botany in *addition* to the regular course.

Walter J. Quick	Columbus.
Elizabeth Shoemaker	Chauncey.

THE UNIVERSITY ACADEMY.

SECOND YEAR STUDENTS.

Orpha Allen	West Newton.
Kate Duenna Adams	Burton.
Laura Belle Adams	Burton.
James Rufus Ammon	Lewisville.
Frank Elmer Beach	Lewisville.
John James Busjahn	Logansport.
James Nelson Bare	Delphi.
Michael Steele Bright	Madison.
Florence Emma Bowen	Chauncey.
Etta Freedom Birch	Chauncey.
Fred Williams Ball	Lafayette.
James Franklin Bruff	Lafayette.
John Baker Clark	Colfax.
Mary Elizabeth Cooper	Lafayette.
Rosa Hattie Campbell	Burton.
Lora Mabel Cox	Chauncey.
Samuel Clark Chute	Lafayette.
Richard Baxter Dickinson	Lafayette.
Willard Bargis Ellwood	Richmond.
Martha Ellen Eichholtz	Culver's.
Lewis Falley, Jr.	Lafayette.
William Eli Fouts	West Point.
Cora Ella Franklin	Chauncey.
Benjamin Sherwood Haywood	Lafayette.
Emma Lucy Hanley	Chauncey.
Ella Belle Howard	Chauncey.
Anna Edith Magovern	Chauncey.
James Malcum Miller	Marshfield.
Erastus Idaho Miller	Burton.
James Walter Martin	Lafayette.
Ralph W Moss	Ashboro.
Franz Sigel Moore	Chauncey.
Lacey L Moore	Chauncey.
Charille Jane Moffitt	Remington.
Dellie Neff	Logansport.

SECOND YEAR STUDENTS—Continued.

Lulu Perkins	Chauncey.
George Washington Pierce	Burton.
Sallie Rarey	South Raub.
Chester Otis Read	Chauncey.
George Wilkinson Ross	Raub.
William Thomas Ross	Raub.
Clarence Snell	Onward.
Charles Cole Shirk	Peru.
John Godfrey Sample	Lafayette.
George Shelby	Wea.
Henry Neville Throckmorton	Lafayette.
May Florence Walton	Octagon.
James Douglass Williams	Wheatland.

FIRST YEAR STUDENTS.

Luetta Viola Ammon	E. Germantown.
Samuel Ellsworth Brown	New Richmond.
Samuel Finley Bartrim	Rockport.
Butler Bright	Rainsville.
Franklin Washington Baker	Monitor.
Buell Brown	Clear Springs.
James Richard Chute	Lafayette.
Fred Colton Comstock	Lafayette.
John Francis Dienhart	Chauncey.
Dexter Elmer Darnell	Bainbridge.
Fred Dorr Falley	Lafayette.
Milton Romine Galloway	Stone Bluffs.
Hilton Hayden	Sherburnville, Ill.
William Henry Hughes	New Marion.
John Wesley Hylton	Whitesville.
Lewis Burt Jackson	Lafayette.
Clark Byron Johnson	Octagon.
Mattie Bruce Jackson	Lafayette.
Minnie May Langlois	Lafayette.
Frank Watrous Morse	Lafayette.
Clara Eva Morehouse	Octagon.

FIRST YEAR STUDENTS—Continued.

John Rufus Nabors	Waynetown.
Anna Kelley O'Neall	Wea.
William Franklin Romine	Stone Bluffs.
James Ross	Raub.
Flora Fannie Roberts	Chauncey.
William Reeves	Liberty.
Robert Davidson Robinson	Burton.
Charles Spencer	Monticello.
Sarah Irma Stevenson	Terre Haute.
Minnie Rose Shockey	Lafayette.
Charles Sumwalt	Aydelotte.
Anna Maud Stewart	Romney.
Augustus Thompson	Larwill.
Laura Belle Widener	Transitville.
Lila Florence Widener	Transitville.
Frank Jenners Wilstach	Lafayette.
William Clarence Whitsel	Octagon.

IRREGULAR STUDENTS.

Martin Anderson Adams	Jeffersonville.
Sallie Levantia Avery	Lafayette.
William Benton Bunker	Lewisville.
John Berry Best	Montmorenci.
Carrie Bower	Lafayette.
Adaline Coppock	West Newton.
Charles Eli Cooper	Lafayette.
Rosella Donelly	Lafayette.
John Miller Doty	Octagon.
John Edward Dyar	Kokomo.
Walter E. Gammon	Richland, Cal.
Edward Everett Heath	Templeton.
Joseph Hill	Dayton.
Sallie Elizabeth Hatten	Chauncey.
Sallie Marion Harris	Fowler.
Ira Jennings Howe	Lafayette.
Ruth Dyche Hunt	Wea.

IRREGULAR STUDENTS—Continued.

John William Kieff	Transitville.
William Wabash Kneale	Colburn.
Charles Benjamin Kneale	Colburn.
George Thomas Keyes	Xenia..
William Franklin King	Montmorenci.
James Buchanan Kayler	Larwill.
Kate Maloney	Templeton.
Nellie McGrath	Lafayette.
Alvernon Percival Moss	Ashboro.
Zulu Zong Mullen	Lafayette.
Amelia McBeth	Taylor's Station.
Edward Lyon Olleman	Waverly.
Rachel Edna Parsons	Lafayette.
Lewis Parker	New Frankfort.
Cyrus Alvin Pontious	Laketon.
Clayton Potts	Indianapolis.
Austin Tunis Quick	Columbus.
Luliona Rosa	Chauncey.
Antonio Linus Surface	Lafayette.
William Thomas Shelburne	Zionsville.
Frank M. Small	Carmel.
Mary Sammons	Burton.
Charles H. Thompson	Shelbyville.
Rolla Anderson Trees	Kokomo.
Sarah Alice VanNatta	Fowler.
Alice Josephine Warnock	Chauncey.

SUMMARY.

COLLEGE.

Post Graduates	3	
Seniors	11	
Juniors	20	
Sophomores	18	
Freshmen	47*	
	—	99

SPECIAL SCHOOLS.

Agriculture	17	
Mechanics	20	
Industrial Art	16	
Chemistry	6	
Natural History	2	
	—	61

ACADEMY.

Second year	48	
First year	38	
Irregular	43	
	—	129
Total		289
Students twice entered (deducted)		51
Total number of different students		238
Number of students appointed by counties		68

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*The whole number of students admitted to the Freshman Class was 50. One entered late and was subsequently transferred to the Academy, and two were granted leave of absence, and are expected to pass examination on Freshman studies at the opening of the next college year.

COUNTIES REPRESENTED.

Names of counties represented by one or more students:

Bartholomew.
Benton, (17).
Blackford.
Boone.
Carroll.
Cass.
Clark.
Clay.
Clinton.
Delaware.
Fountain.
Fulton.
Grant.
Hancock.
Hamilton.
Hendricks.
Henry, (5).
Howard.
Jackson.
Jasper.
Jay.
Jefferson.
Johnson.
Knox.
Marion, (13).
Miami.
Montgomery.
Morgan.
Orange.
Posey.
Putnam.
Ripley.
Rush.
Scott.
Shelby.
Spencer.
Steuben.
Switzerland.
Tippecanoe.
Tipton.
Union.
Vigo.
Wabash.
Warren.
Wayne.
White.
Whitley.

Total . . . 47.

STATES.

California.
Illinois.
Michigan.
Indiana.

MILITARY DEPARTMENT.

PURDUE CADETS.

OFFICERS.

Captain	Henry A. Beck.
First Lieutenant	S. A. D. S. Lyons.
Second Lieutenant	George W. McCoy.
First Sergeant	Charles H. Henderson.
Second Sergeant	Edward E. Sickler.
Third Sergeant	James M. Waugh.
Fourth Sergeant	John B. Clark.
First Corporal	Wiillam F. Romine.
Second Corporal	Ernest G. Merritt.
Third Corporal	Charles H. Eldridge.
Fourth Corporal	Perry D. Creager.

PRIVATES.

M. A. Adams.
J. R. Ammon.
N. J. Bartholomew.
S. F. Bartrim.
M. S. Bright.
Buell Brown.
W. B. Bunker.
W. B. Ellwood.
W. A. Fankboner.
P. S. Fitzgerald.
W. E. Fouts.
M. R. Galloway.
C. D. Keyes.
G. T. Keyes.
J. H. Lyon.
Dellie Neff.
E. L. Olleman.
C. A. Pontious.
W. J. Quick.
C. L. Ratliff.
A. T. Quick.
G. W. Ross.
Clarence Snell.
W. T. Shelburn.

PRIVATES—Continued.

E. G. Hall.
E. E. Heath.
Joseph Hill.
E. K. Hoober.
H. C. Huffstetter.
T. W. Hylton.
C. B. Johnson.
F. M. Small.
Charles Spencer.
C. H. Thompson.
W. M. Taylor.
R. A. Trees.
J. D. Williams.
H. M. Whistler.

COURSES OF STUDY.

PURDUE UNIVERSITY is a college of Science, Agriculture, and the Mechanic Arts. It embraces three departments, designated as follows:

I. The College of General Science.
II. Special Schools of Science, Agriculture, and the Mechanic Arts.
III. The University Academy.

The aim and scope of these departments are indicated below. They are open to students of both sexes.

I. THE COLLEGE OF GENERAL SCIENCE.

The College of General Science provides three general courses of study—

The Scientific Course,
The Agricultural Course,
The Mechanical Course.

The aim of the Scientific Course is to give a thorough scientific education as a general preparation for all industrial pursuits, and, secondly, as an adequate preparation for special courses of study. The natural and physical sciences are the *leading* branches in the course, requiring about one-third of the student's time for the entire period of four years. It also gives unusual prominence to industrial art.

The Agricultural Course aims to give a good scientific education, and also to impart a thorough and practical knowledge of agriculture and horticulture. It adds to the instruction of the first three years of the scientific course (Latin and German excepted) a systematic course of instruction and practice in agriculture and horticulture. Special attention is given to scientific experiments.

The Mechanical Course adds to the branches of study in the first two years of the scientific course (Latin, German, and Natural History excepted) two years of shop practice in the use of hand and machine tools for working in wood and iron, one year's instruction in the elements of carpentry, pattern-making, founding, mill-work, machinery, etc., and one year's training in mechanical drawing—an excellent preparation for a mechanic or machinist, or for a special course in mechanical or civil engineering. These several courses of mechanical instruction and practice are included in the freshman and sophomore years.

These three general courses of study are so arranged that they include nearly the same instruction in science, mathematics, industrial drawing, English, history, and political and intellectual science. In addition to the branches common to the three courses, the scientific course adds three years of Latin or German ; the agricultural course, three years of agriculture and horticulture ; and the mechanical course, two years of practical mechanics and mechanical drawing.

I. SCIENTIFIC COURSE OF STUDY.

N. B. The required branches are printed in small caps; the elective branches in *italics*.

Freshman Year.	1st Term	Biology	Geometry	Industrial Drawing	Latin or German.
	2d Term	Botany	Geometry	Industrial Drawing	Latin or German.
	3d Term	Botany	Geometry, (6 w) Algebra	Industrial Drawing	Latin or German.

English Composition, one lesson a week; *Military Tactics*, three exercises a week.

Sophomore Year.	1st Term	Zoology	Higher Algebra	Anc. History, or Drawing (2 h).	Latin or German.
	2d Term	Physics	Trigonometry	Med. History, or Drawing (2 h).	Latin or German.
	3d Term	Physics	Surveying	Mod. History, or Drawing (2 h).	Latin or German.

Elocution, one lesson a week; *Military Tactics*, three exercises a week.

Junior Year.	1st Term	Chemistry	Analytical Geometry	Rhetoric.	Latin or German.
	2d Term	Chemistry	An'l Geometry, (6 w) Astronomy.	English Literature	Latin or German.
	3d Term	Chemistry	Astronomy.	English Literature	Latin or German.

Elocution, one lesson a week; *Military Tactics*, three exercises a week.

Senior Year.	1st Term	Physiology	*Differential Calculus*	Political Economy, (12 w) U. S. Constitution	*Latin or German.*
	2d Term	Geology	*Integral Calculus*	Intellectual Science	*Latin or German.*
	3d Term	Geology	*Logic or Moral Science*	Intellectual Science	*Latin or German.*

English Literature, one lesson a week; *Military Tactics*, three exercises a week.

Senior students are required to pursue daily at least three branches of study. In place of the elective branches named above, they may take, for a third study, Industrial Design, or Chemistry, or Physics, or Botany, or Zoology, provided that two or more students select the same study. A course in Industrial Design, two hours daily, may be taken in place of the Latin or the German of the Junior year.

II. AGRICULTURAL COURSE.

N. B. The required branches are printed in small caps; the elective branches in *italics*.

Year	Term				
Freshman Year.	1st Term	Stock	Biology	Geometry	Industrial Drawing.
	2d Term	Stock Breeding Comparative Anatomy	Botany	Geometry	Industrial Drawing.
	3d Term	Veterinary Obstetrics Entomology	Botany	Geometry, (6 w) Algebra	Industrial Drawing.

English Composition, one lesson a week.

Year	Term				
Sophomore Year.	1st Term	Horticulture Floriculture, etc	Zoology	Higher Algebra.	Ancient History.
	2d Term	Landscape Gardening Forestry.	Physics	Trigonometry	Mediæval History.
	3d Term	Market Gardening Drainage	Physics	Surveying	Modern History.

Elocution, one lesson a week.

Year	Term				
Junior Year.	1st Term	Veterinary Science	Chemistry	Analytical Geometry	Rhetoric.
	2d Term	Meteorology.	Chemistry	Analytical Geometry Astronomy, (6 w)	English Literature.
	3d Term	Farm Management.	Chemistry	Astronomy.	English Literature.

Elocution, one lesson a week; *Military Tactics*, three exercises a week.

Year	Term				
Senior Year.	1st Term	Political Economy, (12 w.) U. S. Constitution	Physiology	Agricultural Chemistry	German.
	2d Term	Intellectual Science	Geology		German.
	3d Term	Intellectual Science	Geology	*Logic, or Moral Science.*	German.

English Literature, one lesson a week; *Military Tactics*, three exercises a week.

III. MECHANICAL COURSE.

N. B. The required branches are printed in SMALL CAPS; the elective branches in *italics*.

		SHOP PRACTICE.			
Freshman Year.	1st Term	WOOD-WORK	CARPENTRY	GEOMETRY	INDUSTRIAL DRAWING.
	2d Term	PATTERN MAKING.	PATTERN CONSTRUCTION CASTING AND FOUNDING.	GEOMETRY	INDUSTRIAL DRAWING.
	3d Term	VISE WORK.	MACHINE DRAWING, (2 h)	GEOMETRY, (6 w) ALGEBRA	INDUSTRIAL DRAWING.
ENGLISH COMPOSITION, one lesson a week.					
Sophomore Year.	1st Term	FORGING	MACHINE DRAWING, (1 h)	HIGHER ALGEBRA.	INDUST'L DRAWING, (2 h.)
	2d Term	MACHINE WORK	MACHINE DRAWING, (2 h)	TRIGONOMETRY	PHYSICS.
	3d Term	MACHINE WORK	MILL-WORK; MACHINERY	SURVEYING	PHYSICS.
ELOCUTION, one lesson a week.					
Junior Year.	1st Term	LATIN OR GERMAN	CHEMISTRY	ANALYTICAL GEOMETRY	RHETORIC.
	2d Term	LATIN OR GERMAN	CHEMISTRY	ANALYTICAL GEOM'Y ASTRONOMY, (6 w).	ENGLISH LITERATURE.
	3d Term	LATIN OR GERMAN	CHEMISTRY	ASTRONOMY.	ENGLISH LITERATURE.
ELOCUTION, one lesson a week; *Military Tactics*, three exercises a week.					
Senior Year.	1st Term	LATIN OR GERMAN	PHYSIOLOGY	*Diff. Calculus*	POLIT'L ECONOMY, (12 w.) U. S. CONSTITUTION.
	2d Term	LATIN OR GERMAN	GEOLOGY	*Int. Calculus.*	INTELLECTUAL SCIENCE.
	3d Term	LATIN OR GERMAN	*Geology.*	*Logic or Moral Science*	INTELLECTUAL SCIENCE.
ENGLISH LITERATURE, one lesson a week; *Military Tactics*, three exercises a week.					

The shop practice includes two hours of actual work in the shop daily, five days each week. See page 46. Students who are not candidates for the degree of Bachelor of Science, can take Industrial Design or Mechanical Drawing in place of Latin or German in the Junior and Senior years. Students who wish to take a course in Mechanical or Civil Engineering will be admitted to the School on the completion of the first two years of the above course.

INSTRUCTION.

NATURAL HISTORY.

The instruction in Natural History commences in the first term of the Freshman year, with a course in Elementary Biology. This is intended to lay the foundation for a thorough and accurate knowledge of Zoology and Botany. The instruction is of a practical nature, the actual observations of the student in the laboratory taking the place of recitation from a text-book. A sufficient number of dissecting and compound microscopes are provided to enable each pupil to do for himself all the work required. It is expected that a thorough study will be made of a number of typical plants and animals. Huxley and Martin's Elementary Biology is used as a laboratory guide.

In Botany, the study of the gross anatomy of each organ of Phanerogamous plants, with special reference to Morphology, is followed by microscopic investigation of its histology, and lectures upon its physiology. The subjects of food, assimilation and metastasis, growth, fertilization, influence of light and temperature, movements, etc., are treated as nearly as possible in connection with the organs with which they are most intimately associated. Instruction will be given in the best methods of collecting, preserving, and studying plants, and, in the second term, students dissect and analyze a number of common wild flowers. Cryptogamous plants, in addition to those studied in Biology, are briefly considered. Bessey's Botany and Gray's Manual are used as books of reference.

The Instruction in Zoology aims to give the pupil an accurate knowledge of the structure of typical species of the several groups of the animal kingdom. Dissections, commenced in the course in Biology, will be continued with special reference to structure and structural modifications in the different groups. Vertebrates and insects receive most attention, while the less known animals will not be neglected. In Systematic Zoology pains will be taken to show the genetic relationships between the different classes and orders as manifested in their structure. Jordan's Manual of Vertebrates and Packard's Zoology are used as books of reference.

The course in Physiology is intended to give a more detailed knowledge of the functions of the human body than would be possible earlier in the course. Both the anatomy and functions of the nervous system, preparatory to the study of Intellectual Science, will receive special attention. Martin's Human Body is used as a text-book.

In Geology, the first term will be devoted to Structural and Dynamical and the last term to Historical Geology. A short course in Determinative Mineralogy, with special reference to the minerals entering most largely into the composition of rocks and those associated with ores, will be included in this work. Dana's Manual of Geology is used as a text-book.

PHYSICS AND CHEMISTRY.

The course in Physics, in the Sophomore year, includes the elements of mechanics, hydrostatics, pneumatics and acoustics, the first term; and chemical physics, including heat, light, statical and galvanic electricity, the second term. Atkinson's Ganot's Physics is used as a handbook. The course in the Senior year (elective) includes more advanced instruction in heat, light, sound and electricity, with laboratory practice.

The course in Chemistry in the Junior year includes theoretical and experimental chemistry, and the elements of synthetical chemistry, analytical chemistry (qualitative analysis), and crystallography. The instruction includes lectures and recitations (5 hours a week), and laboratory practice (5 hours a week). Students use the balance and apply the principles of stoichiometry from the first. Definite quantities of substances are used and the product of each reaction weighed or measured, and the *actual* quantities thereof compared with the theoretical. Reports of all work done are made out on blanks, provided for the use of students. Students use as a handbook, Roscoe's Chemistry, or Tidy's, or Eliot & Storer's.

INDUSTRIAL ART.

The instruction in Drawing, in the Freshman year, first term, begins with instrumental work. About one hundred problems in geometrical drawing, to be solved by means of the ruler and the compass, are given as lectures from the blackboard, on which the students must pass an examination. The time required for this is about four weeks. During the rest of the term, about one hundred problems in linear perspective including parallel, angular, and oblique, showing how to put into perspective the various geometrical forms under given conditions of size, distance, position with reference to the spectator, and position with reference to both picture and ground planes, are given as lectures from the blackboard.

The second term includes one hundred and twenty-five or more problems illustrating the elementary principles of orthographic projection (commonly known as the making of plans, elevations and other "working drawings"), including the development of surfaces, intersections of surfaces with cutting planes and with each other, and isometric projection. The instruction is given from the blackboard.

The third term includes free-hand outline drawing from round geometrical models, as cylinders, cones, vases, crockery-ware and such common objects as illustrate the circle seen obliquely; the drawing of cubes, of square, triangular, and hexagonal prisms, crosses, skeleton cubes, etc.; the drawing of these geometrical solids, above mentioned, *in groups*, and the application of the same to the drawing of irregular objects, as chairs, tables, desks, sofas and buildings.

During the first term of the Sophomore year, model and object drawing in light and shade will be practiced, using first the crayon and stump, and afterwards, charcoal, sepia, neutral tint, India ink, etc.

The work of the second term embraces instruction in the theory of color. The principles of harmony and contrast are explained and practically applied in water colors. Instruction in botanical analysis and conventionalization of plants for purposes of design, is also given in this term.

In the third term the different styles of historical ornament, ancient, medieval, and modern, will be explained and examples given, so that students may learn the characteristics of each style.

MATHEMATICS.

The Freshman year, except six weeks at the close of the Spring term, is devoted to Geometry, (Olney's.) The completion of the subject in the same year secures the continuity which is absolutely necessary in the study of the mathematics.. While the logical demonstration of each theorem is required, the mathematical accuracy of each figure is also insisted upon. Practical applications of the principles are combined with daily work in class by means of problems in mensuration and original demonstrations of theorems outside of the regular routine of text-book work. Higher Algebra (Olney's University) is pursued from the beginning of the Sophomore year to the Christmas vacation. The method adopted in the solution of higher equations may be styled the graphical, since the solution is accompanied by the construction of the locus of the equation. Algebraic charts, made by the professor in charge, illustrate this difficult subject. The plan of teaching Geometry before Higher Algebra has been used here for several years, and the results are entirely satisfactory. It is believed to be the true order for the study of these branches.

Olney's Trigonometry is studied during the winter term. Loomis's Surveying is used as a manual, but occupies a subordinate place as a means of instruction, the work in the class-room being based on the student's own surveys in the field. Lands are surveyed and plats made. Distances are first measured by the instrument and then the results are verified by chaining. The students thus acquire a practical familiarity with the operations of the surveyor. Analytical or Coördinate Geometry (Loomis's) is studied during the first half of the Junior year. Here, again, but more fully than in the Sophomore year, are the principles of geometrical construction discussed, especially as applied to the loci of conic sections. No discussion is carried on without the appropriate construction accurately executed. The subject is also illustrated by many practical problems. The same may be said of Astronomy (Loomis's) as presented in the latter half of the Junior year, the work being practical and comprehensive, directing the student to more extensive private investigation. Students are taught the use of the telescope, and they make independent observations. The Calculus (Loomis's) is elective, and none but the best mathematicians of the Senior class choose it. This renders it possible to do more satisfactory work than in any other year of the course.

ENGLISH AND HISTORY.

The instruction in English includes Composition, Rhetoric, and English Literature. The course in Composition is designed to be practical, and it is made as comprehensive as the time devoted to the subject will permit. It so combines mechanical composition with composition proper that the one may not be dry nor the other too difficult. The subjects are sometimes given and outlined by the instructor, and at other times the student makes choice of his subject and determines the method of its treatment. Special attention is given to letter writing.

The course in Rhetoric includes instruction in the leading principles of the art, a thorough drill in figures of speech, including the analysis of figurative writings, and a critical study of several works by standard authors.

The instruction in English Literature aims to interest and direct the student in the reading of the best works of one or more of the leading authors of each literary epoch. It is believed that the inspiring study of a few representative writers is much more valuable than the memorizing of a catalogue of authors with glances at specimens of their style. The course for the past year has included a critical study of Shakespeare's "Hamlet," selections from Scott's "Lady of the Lake," and Byron's "Prophecy of Dante." The class exercises have included many carefully written essays on the lives and literary characteristics of distinguished authors. Shaw's Manual is used as a text-book.

The instruction in History aims (1) to impart a knowledge of leading historical events, and (2) to cultivate a taste for historical reading. Special attention is given to the lives and characters of the prominent men of each epoch. Lectures are given on special subjects and the pupils are required to write essays on various historical topics. The Department of History is fairly represented in the Library, and standard works will be added from time to time. Thalheimer's Manuals are used as text-books.

LATIN AND GERMAN.

The students in the Scientific Course are required to study Latin or German three years. Two years of Latin and two years of German may be taken in place of the three years of Latin or German.

The course in Latin in the Freshman year, includes Harkness's Latin Grammar, Harkness's Latin Reader, a few chapters of Cæsar, and prose composition; in the Sophomore year, three books of Cæsar, four orations of Cicero, and prose composition; in the Junior year, four books of Virgil, two terms, and DeSenecute, one term; in the Senior year (elective), Horace, one term, Tacitus, one term, and Livy, one term.

The course in German includes, in the Freshman year, Worman's Elementary Course (Grammar and Reader), and composition and conversation; and in the Sophomore year, Worman's Complete Course, composition and conversation. The course in the Junior and Senior years has included Schiller's "William Tell," Schiller's "Mary Stuart," Goethe's "Egmont," Goethe's "Faust," a scientific work in German, etc., but changes in the course may be made next year.

POLITICAL AND INTELLECTUAL SCIENCE.

The instruction in Political Economy aims to train the student in probable reasoning and to guard him against hasty generalization in those departments of the science where the facts are not well determined and known. Special attention is given to those subjects which more directly relate to agricultural and mechanical interests. Walker's Science of Wealth and Chapin's Wayland's Polítcal Economy have been used as hand-books.

Andrews's Manual of the Constitution is used as the basis of the instruction on the Constitution and Government of the United States.

The instruction in Intellectual Science (Porter's) does not differ essentially from that given in other colleges. The aim is to give less attention to the speculative and metaphysical phases of the science and more to the empirical and practical.

AGRICULTURE AND MECHANICS.

The instruction and practice in Agriculture and Horticulture and Mechanics are fully described in the special courses (pp. 23–25,) each of which forms a part of the regular course.

CONDITIONS OF ADMISSION.

Applicants for admission to the College of General Science should be over sixteen years of age, and of good character. Those possessing more than common physical health and strength, with high attainments in preparatory studies, may be admitted at an earlier age.

Applicants for admission to the Freshman class must pass a satisfactory examination in the common branches, and also in Elementary Algebra, (including quadratic equations,) the History of the United States, Physical Geography, and Physiology. An applicant's knowledge of the common branches must be sufficient to entitle him to a teacher's certificate of good grade; and his knowledge of the elements of Algebra should be thorough. Applicants for admission to higher classes must pass an examination in the lower studies. Applicants who have completed their course of preparation in High Schools, which hold the certificate of the State Board of Education, will be admitted without examination.

EXAMINATIONS FOR ADMISSION.

Entrance examinations are held at the University in June and September of each year. In 1882 the first examination will be held June 6th and 7th, and the second, September 5th and 6th. Applicants may appear at either examination; but, when practicable, it is best to apply for examination in June.

Arrangements have been made for holding entrance examinations in the several counties of the State, under the direction of County Superintendents. Applications for such an examination should be made to the President of the University, Lafayette, Indiana. On the receipt of one or more applications from any county, printed questions, with directions, will be sent to the County Superintendent, and the applicant or applicants may present themselves at the first regular county examination for teachers. The written answers will be forwarded to the University, where they will be read and marked, and a certificate of admission forwarded to each applicant who has passed the examination. The first county examination of applicants for admission to the University in September next, will be held in the several counties, *in connection with the regular examination of teachers, the last Saturday of July.* Application for examination at this time should be made as early as July 10th.

DEGREES.

The degree of Bachelor of Science (B. S.) will be conferred on students who complete the Scientific Course, or the Agricultural Course, or the Mechanical Course.

The degree of Master of Science (M. S.) will be conferred on persons holding the degree of B. S., who, having devoted at least three years to the study of advanced science, pass an examination on the same, and submit a thesis.

The degree of Analytical Chemist (A. C.) will be conferred on students who complete the special course in Chemistry.

A diploma will be granted to students who complete the course in any one of the Special Schools.

Candidates for a degree, or for a diploma, may present themselves at the annual examination, before commencement. Application should be made at least three months before the examination. A residence at the University is not required.

The price charged for a diploma is five dollars, the money to be paid to the Registrar before commencement week.

II. SPECIAL SCHOOLS.

The following special schools have been organized.

1. School of Agriculture and Horticulture.
2. School of Mechanics.
3. School of Industrial Art.
4. School of Chemistry.
5. School of Natural History.
6. School of Mechanical and Civil Engineering.

These schools provide special courses of instruction for students who wish to pursue one or two branches as *specialties.* The courses in Agriculture and Horticulture, and Mechanics, are the same as those included in the regular Agricultural and Mechanical courses in the College. Special students in either of these schools can take the courses prescribed for two years, in one year, if those in Agriculture have the requisite knowledge of Biology and Botany, and those in Mechanics have the requisite knowledge of Geometry and Drawing. The courses in the other Special Schools are designed to supplement the instruction included in the regular college courses with more advanced and more special instruction.

These Special Schools are all open to students who have the requisite knowledge of preparatory branches. The conditions of admission include those prescribed for admission to the College of General Science (see page 32), and such other conditions as may be stated in connection with the several courses of study. Students who have not received this preparatory training, fail, as a class, to do satisfactory work, and thus impede the progress of other students.

Graduates from other colleges, who have received the degree of Bachelor of Science, or Bachelor of Arts, will be admitted to any one of the Special Schools without examination.

The statements and schedules below are intended to give a general idea of the courses of instruction and practice in the Special Schools.

I. SCHOOL OF AGRICULTURE AND HORTICULTURE.

The students in this school enter the classes taking the regular Agricultural course, and are subject to the same regulations. The course of study and practice for both regular and special students, is as follows:

FIRST YEAR.

First Term—Lectures on stock—breeds of horses, cattle, sheep and swine; biology.

Second Term—Stock breeding, (Miles's;) comparative anatomy; botany.

Third Term—Veterinary obstetrics; entomology; botany.

SECOND YEAR.

First Term—Horticulture, floriculture, and green-house management; zoology.

Second Term—Landscape gardening, (Kemp's;) forestry; physics.

Third Term—Market gardening; drainage; physics.

THIRD YEAR.

First Term—Veterinary science, (Law's;) chemistry.

Second Term—Meteorology, (Loomis's;) chemistry.

Third Term—Farm management and economy; chemistry.

FOURTH YEAR.

First Term—Agricultural chemistry; physiology.

The agricultural students are required to labor two hours a day during the first and third terms of the Freshman and Sophomore years. In the second or winter term of each of these years an abbreviated course in practical mechanics is required.

The labor is chiefly done on the campus, in the nursery and orchard, in the green-house and in the experimental field; and the students thus receive practical training in the care of lawns, hedges, and ornamental trees, orchards and vineyards, and in the cultivation of small fruits, garden products, cereals, grasses, etc. They are paid ten cents an hour for satisfactory work.

The reading room of the University is furnished with such standard papers as the Agricultural Gazette, (London), Gardener's Monthly, National Live Stock Journal, American Agriculturist, and Poultry World, besides eight others equally as good, but less devoted to specialties.

The library contains bound volumes of several good journals for years past, and the following works of reference, with many others: Chauveau's Anatomy (Comparative), Allen's American Cattle, History of Short Horn Cattle, Arnold's American Dairying, The Ayrshire Cow, French's Farm Drainage, Waring's Elements of Agriculture, Downing's Fruit and Fruit Trees of America, Warder's Pomology, Kemp's Landscape Gardening, Henderson's Works on Gardening, Barry's Fruit Garden, Warder's Hedges and Evergreens, several volumes of the Royal Agricultural Society's Reports, and those of the Highland Society, of Scotland.

II. SCHOOL OF MECHANICS.

The students in this school enter the class taking the regular Mechanical Course, and are subject to the same regulations. The course of training, including shop practice (two hours daily) and suplementary instruction, is as follows:

FIRST YEAR.

FIRST TERM.

Shop Practice—Bench work in wood, ten weeks; machine work in wood, five weeks. The bench work consists of exercises in sawing, planing and rabbeting; in making mitre and dovetail joints; panel work, etc. Machine work, involving turning and scroll and circular sawing, includes the construction of a series of small articles arranged to illustrate the different uses of the cutting tools, and the different adjustments of the lathe.

Supplementary Instruction—The construction and action of hand and machine tools for wood working; principles of framing, building of roofs, floors, and partitions, and other subjects pertaining to general carpentry. Shelley's Workshop Appliances is used as a text-book.

SECOND TERM.

Shop Practice—Pattern making, bringing into use the knowledge and skill acquired in both the bench-work and wood-turning courses, and giving practice in the details of the pattern maker's art. Castings from some of the patterns will be used in the vise work and machine courses that follow.

Supplementary Instruction—The general principles of pattern construction, allowance for draft, shake, shrinkage, and finish, construction of special patterns, blocks, ornaments and cores for columns; thin work; general foundry work; construction and management of furnaces and core ovens, molding, sweep and loam work, etc. Rose's Complete Pattern Maker is used as the text-book.

THIRD TERM.

Shop Practice—Vise work in iron, including filing, chipping, sawing, and the squaring and fitting of cast iron, wrought iron, and steel, entirely by hand.

Supplementary Instruction—Machine drawing, explanation and drawing of eccentrics and cams to produce given motions, pillow-blocks, shaft-hangers and brackets.

SECOND YEAR.

FIRST TERM.

Shop Practice—Iron forging, beginning with the simple operations of drawing and upsetting, and gradually advancing through the different processes of welding and forming, until very difficult iron forgings are made.

Supplementary Instruction—Machine drawing; the drawing of spur and bevel geared wheels, including cycloidal and involute curves and their application to the development of the teeth in the above named gears.

SECOND TERM.

Steel forging, four weeks; machine work, eight weeks. Steel forging is taken up in much the same way as iron forging, by first welding and forming simple tools, which can be easily made and tempered; this work is followed by more difficult tool-making and tempering.

Machine work brings into use the different adjuncts of the machines, center rest, boring bar, and planer center. Practice is given in all kinds of turning, planing, drilling, screw cutting, taper fitting, slotting, boring, fluting, etc.

Supplementary Instruction—Machine drawing, including drawings from actual machines and parts of machines, made to scale from measurements taken by the student.

THIRD TERM.

Shop Practice—Machine work continued from second term.

Supplementary Instruction—Machines for iron working, different forms of cutting tools, cutting speeds and feed, general manipulations, machine construction, and mill work. Rose's Complete Machinist is used as the text-book.

Besides the class work in the shops, there is generally an opportunity for those desiring work to add to their experience by making repairs, and in the construction of tools and appliances for the different departments of the institution. For such work students receive compensation at the rate of ten cents per hour.

The mechanics' shop is adequately fitted for the above courses, and the University library contains valuable reference books and journals, including Appleton's Dictionary of Applied Mechanics (2 vols.,) Rankin's Mechanical Text-book, Rose's Practical Machinist, Goodeve's Elements of Mechanism, Hasson's Mechanic's Tool Book, Jellett's Theory of Friction, Joynion's Machine Gearing, Clark's Manual of Rules, Tables, and Data, Northcott's Lathes and Turning, Champion's Mechanical Engineering and Workshop Machinery, Van Buren's Strength of Parts of Steam Machinery, Van Nostrand's Steam Engine, Propellers, etc., and Clark's Practical Millwright; also the Scientific American, Scientific American Supplement, American Machinist, Blacksmith and Wheelwright, and about as many other works of like value.

III. SCHOOL OF INDUSTRIAL ART.

The instruction in this School includes two courses, and applicants for admission to either must have completed the course in Drawing prescribed for the Freshman Class of the College, or its equivalent.

I. INDUSTRIAL DESIGN.

FIRST YEAR.

Free-hand and instrumental drawing, in addition to the course prescribed for the Academy and College classes, will include drawing and shading from casts; shading with different mediums, as crayon, charcoal, sepia, neutral tint, India ink, etc.; botanical analysis of plants and the conventionalization of foliage from nature for purposes of design; historical ornament; harmony and contrast of color.

SECOND YEAR.

The second year will be devoted almost entirely to designing articles of manufacture and their ornamentation, as furniture, iron-work, stone carving, carpets, porcelain, wall paper, prints, oil-cloth, stained glass, etc.; also to the modeling in clay of various ornamental designs suitable for carving in stone or wood.

Some of the books of reference for this department, in the library, are Principles of Decorative Design, by Christopher Dresser; Dresser's Studies in Design; Redgrave's Manual of Design; Spofford's Art Decoration Applied to Furniture; Billing's Power of Form; Babbitt's Principles of Light and Color.

II. MECHANICAL DRAWING.

FIRST YEAR.

Same as first year of course in Industrial Design, except that the instrumental drawing will include the drawing of the details of machinery.

SECOND YEAR.

1. Drawings made to scale of engines and other machines, showing plans, elevations, and sections, from copy.
2. Drawings of machines, as a lathe, engine, or other machine, from measurements made by students.
3. Drawings made from data given.
4. Original designs for machines, giving plans, elevations, sections, etc.
5. Orthographic projection and projection of shadows will be continued from first year, and in addition, Descriptive Geometry, development of surfaces, intersections of solids, and stereotomy will be studied.

The principal books of reference in this department are The Practical Draftsman; Appleton's Cyclopedia of Drawing; Watson's Course in Descriptive Geometry; Warren's Descriptive Geometry; Warren's Machine Construction and Drawing; Weisbach's Mechanics and Mechanical Engineering.

IV. SCHOOL OF CHEMISTRY.

This school is open to students who have completed the first two years of one of the College courses, or an equivalent. Students who are prepared for the work are sometimes permitted by special arrangement, to take a partial course.

FIRST YEAR.

Same as in Junior year of the Scientific course.

SECOND YEAR.

First Term.—Lectures on Qualitative Analysis, five hours a week; laboratory practice, ten hours a week.

Second Term.—Lectures on Qualitative Analysis continued; soils, minerals and fertilizers; principals of Quantitative Analysis. Instruction, five hours a week; laboratory practice, ten hours a week.

Third Term.—Processes of Quantitative Analysis continued; general review of principles of analysis. Instruction, five hours a week; laboratory practice, ten hours a week.

THIRD YEAR.

The studies of this year are arranged in three divisions, and a student, especially a graduate, should be able to pursue successfully at least two of them. It is expected that students in the third year's course will give from six to eight hours a day to actual work in the laboratory, since it is only by constant practice that celerity and accuracy can be attained.

I. *Mineralogy.*—Descriptive and mathematical crystallography; drawing of crystal forms; use of goniometer; determinative mineralogy, to be taught in the Mineralogical Laboratory.

The Laboratory is provided with reflecting and common goniometers, a full set of crystal models in glass, with colored silk-thread axes, and a set of wooden crystal models to illustrate modified forms. It is also provided with a respectable collection of minerals, suitable for illustration of physical properties and for use in chemical analysis.

II. *Metallurgy and Assaying.*—The course will include the assaying of lead, silver and copper ores, of coins, plate, etc., the analysis of iron and steel, and of iron and zinc ores, the methods of manufacture of wrought-iron and steel, etc.

Crucible assays and cupellations will be practiced with ores of lead, silver, gold and copper, but with coin and plate the volumetric assay will be chiefly employed. Instruction will also be given in electro-plating and the composition of alloys.

When practicable, excursions will be made to inspect furnaces in operation. Iron furnaces are accessible at Brazil and Knightsville, Bessemer steel works at Chicago, and zinc furnaces at La Salle, Illinois.

N. B. Students in Metallurgy and Assaying are required to take the course in Mineralogy.

III. *Organic Chemistry.*—Lectures, recitations and laboratory work. Special attention is given to the practical study of fermentation, properties and synthesis of alcohols, coal-tar products, etc. Ultimate and proximate organic analysis will occupy a large portion of the student's time. Special attention will be paid to sugar analysis and to the detection of adulterations in butter, milk, and other foods. This work will have special reference to technical applications.

The Chemical Laboratory has a well selected library, relating to all departments of the science. Among the journals taken are, The Chemical News, London; Chemisches Central Blatt, Leipzig, and the American Journal of Chemistry.

V. SCHOOL OF NATURAL HISTORY.

Two courses are open to students, viz: Botany and Zoology, and they will be permitted to select the branch to which they wish to give special attention.

I. BOTANY.

Candidates for admission must have completed the course in Biology and Botany in the Freshman year, or its equivalent.

FIRST YEAR.

First Term.—Systematic and Structural Botany continued. During the first six weeks students will analyze in the Laboratory species of the more difficult orders, Compositæ, Gramineæ, etc., those most easily obtained in the fall. The remainder of the term will be devoted to the study of advanced Physiological Botany, with class experiments and laboratory work.

Second Term.—Histology. A full study of the tissues of plants will be made with the compound microscope.

Third Term.—Organogeny and Embryology. Laboratory work similar to that of the second term.

SECOND YEAR.

First Term.—Cryptogamic Botany. Special attention to structure and methods of reproduction.

Second and Third Terms.—The student will be permitted to select some special plant or group of plants which he will study carefully, embodying the results of his investigation in a thesis.

II. ZOOLOGY.

Candidates for admission must have completed the course in Zoology in the Sophomore year, or its equivalent.

FIRST YEAR.

First and Second Terms.—Invertebrate Zoology, with special attention to structure and relationships. Actual study of alcoholic and living specimens will be required.

Third Term.—Vertebrate Zoology; the classes *Pisces*, *Amphibia*, and *Reptilia.*

SECOND YEAR.

First Term.—Vertebrate Zoology continued; the classes *Aves* and *Mammalia.*

Histology will be studied throughout the course and drawings to scale of the various tissues required.

Second and Third Terms.—During the second and third terms the student will devote himself to the study of some special group of animals, embodying the results of such study in a thesis.

In connection with each subject, instruction will be given in the best methods of collecting, preserving, and studying the species under consideration.

VI. SCHOOL OF MECHANICAL AND CIVIL ENGINEERING.

This School will be reorganized in September, 1882. It will be open to students who have completed the first two years of the regular Mechanical course, or an equivalent.

The course of instruction will be arranged before the opening of the next college year.

III. THE UNIVERSITY ACADEMY.

The Academy has the two-fold object of preparing students for admission to the College of General Science, and of providing thorough instruction in the higher common-school branches for those who can not take a more extended course. It thus fills the gap between the common country school and the college. The Academy is in charge of first class teachers, and is provided with commodious rooms and other appliances necessary for thorough and practical instruction.

In all the work done the students are required to be thorough and practical. They illustrate history and physical geography by maps, diagrams, charts, profiles, etc.; physiology by suitable designs, and the drills in reading are supplemented by the study of American authors. Recapitulations, analyses, and critical discussions are required in English.

The instruction in drawing includes free-hand outline drawing from copy, dictation, and memory, and the elementary principles of object drawing.

Special pains is taken to make the work of the review classes in the summer term practical and suggestive. Much information is given by oral instruction, the use of the microscope, dissections, views with the scientific lantern, etc. An excellent opportunity is thus afforded teachers and others to review the legal branches.

The course of study is so arranged that students who pass a satisfactory examination in Arithmetic, Geography, English Grammar, Reading, and Spelling, can prepare for the Freshman class in one year. Physiology and United States History can be reviewed in connection with the studies of the second year.

The first year's course is devoted to the "legal branches."

The regular course of study is as follows:

COURSE OF STUDY.

FIRST YEAR.

First Term	Arithmetic	Physiology	English Grammar†	Drawing.
Second Term.	Arithmetic	Physiology, (5 w) U. S. History	English Grammar	Drawing (5 w.) Penmanship.
Third Term	Reading	U. S. History	English Grammar.	Penmanship.

SECOND YEAR.

First Term	Algebra	Physical Geography	English Analysis	Drawing* or Book-keeping.
Second Term	Algebra	Physical Geography	Elementary Rhetoric, with Study of Authors	Drawing* (5w), or Book-keeping. Penmanship* or Book-keeping.
Third Term	Algebra	Civil Government		Penmanship*, or Book-keeping.

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* Students who have taken the first year's course in Drawing and Penmanship, may take Book-keeping instead.

† The first term is devoted chiefly to Composition, which is continued, with frequent exercises, through the entire course in English.

The text-Books used in the Academy include White's Complete Arithmetic; Hutchinson's Physiology; Ridpath's United States History; Harvey's English Grammar; Smith's Drawing Series; Eclectic Penmanship Series; Schuyler's Complete Algebra; and Huston's Physical Geography.

Students who expect to attend the Academy but one or two terms, and those who, for other good reasons, may not wish to take the regular course, will be permitted to pursue selected studies, provided they are prepared to recite in classes already organized. *Special classes can not be formed.* Students once admitted to a class can not leave it, except by permission of the Academy Faculty.

CONDITIONS OF ADMISSION.

Applicants for admission to the Academy should be over fifteen years of age. They must pass a satisfactory examination in Arithmetic (through percentage), Geography, English Grammar (etymology), and Spelling. The examination must show a fair knowledge of these elementary branches, as taught in the common schools.

Arrangements have been made for holding examinations for admission to the Academy (first year) *in the several counties of the State, under the direction of County Superintendents.* Applications for examination should be made to the President of the University, Lafayette, Indiana. For fuller directions, see page 33.

Applicants for the *second-year* course are examined at the University. The examination includes the common branches, and also Physiology or United States History. Their knowledge of the common branches must be sufficient to entitle them to a teacher's certificate of good grade.

Applicants from graded schools in cities and towns are required to present a certificate of good standing in school, both in scholarship and deportment.

This Institution is not designed to be a reformatory, and applicants who are known to have bad habits will not be admitted. When a student's habits and influence are found to be immoral, his connection with the Academy will be terminated.

ADVANTAGES.

Purdue University is located about one mile west of the city of Lafayette, and less than half a mile from the village of Chauncey. The grounds are over one hundred feet above high-water mark in the Wabash river, and the buildings command a fine view of the city, valley and surrounding country. Lafayette is situated at the intersection of four railroad lines, extending respectively from Cincinnati and Indianapolis to Chicago, from Toledo to St. Louis, from Louisville, Ky., to Chicago, and from Sandusky, Ohio, to Bloomington, Ill. These roads give the University direct railroad connection with all parts of the State.

GROUNDS.

The campus and gardens contain twenty acres, bounded on the south and east by wide avenues bordered with walks and trees, and on the north and west by "wind-brakes" of pines and hemlocks. The grounds are laid out with convenient drives and walks, bordered with hedges and choice trees, and the lawns are ornamented with shrubbery and flowers.

BUILDINGS.

The main college building, "University Hall," has two fronts, each 136 feet in length, and is divided by two hall-ways into three sections. The central portion is five stories high, including the basement and mansard stories, and the two ends are each four stories high, with an attic. The ends of the two hall transepts are surmounted, three by a turret and one by a tower or belfry. The basement is stone and the upper stories brick, with stone trimmings. The building contains a chapel, or assembly hall, 56 by 41 feet, with galleries on three sides; an academy hall 56 by 41 feet; two society halls, each 51 by 29 feet; a library room, 41 by 27 feet; three cabinet rooms, each 41 by 27 feet; eight recitation rooms, each 29 by 25 feet; two well lighted basement rooms, each 29 by 25 feet; two smaller rooms for natural history purposes; and a suite of lunch and toilet rooms for ladies.

The other buildings in use are the Boarding House, the Young Men's Dormitory, the Laboratory, the Agricultural Hall, the Military Hall, the Boiler and Gas House, and the Peirce Conservatory.

The Boarding House contains a spacious dining room, a kitchen, laundry, etc., and rooms for family and servants; two suites of rooms for members of Faculty, and fourteen rooms for the occupancy of young ladies; and a complete suite of rooms for the School of Industrial Art, including a large lecture hall, four smaller rooms for shading, modeling in clay, office and library, etc., and two basement rooms for special work.

The Dormitory is four stories high. The second, third and fourth stories contain each eight suites of rooms, each suite consisting of a study room and two bed rooms with closets, and the first story contains four suites of rooms, each consisting of a study room and one bed room, and six rooms, each about the size of a study room. If each student is allowed a bed room, the Dormitory will accommodate about sixty students. The building is divided into two sections, and each section has a bath room on each floor.

The first story of the Laboratory contains the Chemical Laboratory, with a complete suite of rooms; the second story affords ample accommodations for the department of Physics, with a lecture room for School of Mechanics; and the basement contains a large mechanics' shop, two forge rooms, a lumber room, and a room for assaying, smelting, etc.

The "Agricultural Hall" is a new building, designed for use in connection with the experimental work of the University, and is an important addition to its working appliances in agriculture. The main part is 44 by 32 feet, and contains on the lower floor a seed room, a tool room, a convenient office, where are kept the indoor meteorological instruments, and a room for a museum of agricultural, horticultural, and forestry products. The second floor contains a finely lighted and conveniently arranged class room for the use of the Agricultural class, a room for work in Comparative Anatomy, and one for the person in charge of the building and the instruments. In the rear is a large store room, 56 by 24 feet, with drive-way, in which is located a pair of scales for the accurate weighing of the products of experimental plats The remainder is divided into compartments for the storage of these products until threshed, and weighed again as grain, etc. The whole is plainly but substantially built, and is surmounted by deck and balustrade, which, reached by a stairway, makes a good place for mounting the instruments exposed to wind and rain.

The Boiler and Gas house contains four large steam boilers for heating, and two retorts for the making of gas for lighting, the entire group of buildings. It also contains the engines which are used for pumping water and for supplying needed power for driving the machineryin the mechanics' shop.

The Military Hall contains a spacious drill-room, and smaller rooms for storing arms, etc.

The Green-house, built in 1879, is a neat structure, about fifty by twenty feet, with addition for boiler and fuel, and for potting purposes. It was built from a donation by M. L. Peirce, Esq., the Treasurer of the University, and is called the "Peirce Conservatory." A house for propagating purposes, 83 by 13 feet, has recently been added, and is already well filled.

The engineer's house, gas refinery, stable, etc., are located on the west side of the grounds. The farm house, barn, granary, and other farm buildings are located on the one hundred acres situated south of the campus, on the opposite side of the street.

CHEMICAL AND PHYSICAL APPARATUS.

The University has a good supply of chemical apparatus and a well-equipped Laboratory. Each student is furnished with a full set of apparatus and the necessary chemicals for all his work and experiments, and he is held responsible for their proper use. He is charged with actual breakage and damage. For illustrating the first principles of chemistry, a complete set of Hoffman's apparatus is provided. A fine lantern for projection, with electric light, is used to throw diagrams and formulas on the screen.

The physical apparatus has been selected with more special reference to experimental lectures, and is fullest in the departments of electricity and magneto-electricity. It includes a full set of telegraphic apparatus, two frictional electric machines, batteries of Leyden jars, etc. The celebrated Gramme machine furnishes an inexhaustible source of electricity for experimental and illuminating purposes. In the department of heat there is a Melloni's apparatus, with all its accessories, and in that of sound a Koenig's phonautograph, a sonometer, and a set of organ pipes.

Within the past year important additions have been made to the apparatus and appliances of the Laboratory. A room has been specially fitted up for the analysis of fertilizers, and other work contemplated by the Legislature in creating the office of State Chemist. The apparatus added includes a large amount of glass and porcelain ware, imported from Germany, and an improved polariscope, imported from Paris, the "Laurent grand modèle" used in the French Customs, and in all official sugar work of the French government. The Purdue Laboratory affords to an industrious student good facilities for routine and original work.

CABINETS AND MUSEUM.

The Geological Cabinet embraces the following materials:

1. Minerals.—The collection of minerals has been largely increased by purchase and exchange during the past year. The ores of gold, silver, lead and iron, with their associated minerals are well represented.

2. Fossils.—Specimens illustrating the life of the Silurian, Devonian and Carboniferous ages. Among the rest a fine set of Crinoids from the Sub-carboniferous beds at Crawfordsville, and a number of beautifully preserved ferns from the Coal measures of Indiana and Illinois, are to be noted.

3. *Archæology.*—An interesting collection of stone and flint implements of the prehistoric inhabitants of this country.

The Zoological Museum embraces the following collections:

1. *Marine Invertebrates.*—A series of 144 species, collected by the United States Fish Commission on the Atlantic coast, and presented by the Smithsonian Institution.

2. *Conchology.*—A good collection of land, marine and fluviatile shells, the latter chiefly of this vicinity, illustrating the form and growth of typical species of each group.

3. *Entomology.*—The "Scheuch Collection," consisting of 27 cases of Coleoptera, including seven thousand specimens and over two thousand species, collected chiefly in Southern Europe, elegantly mounted and correctly labeled, presented by Fred. Scheuch, Esq., of Lafayette, now United States Consul at Barcelona, Spain. Fourteen cases collected in this vicinity, mounted and named.

4. *Fishes.*—By the kindness of the Smithsonian Institution we have received sets of fishes collected on the Atlantic and Pacific slopes, in all one hundred and eleven species.

5. *Reptiles and Amphibians.*—A collection of these two classes preserved in alcohol, mostly species of this locality.

6. *Ornithology.*—About two hundred mounted birds, mostly from Indiana, and nearly one hundred skins suitable for study.

7. *Mammals.*—Several articulated skeletons, illustrating the orders *Ungulata* and *Carnivora.* Crania, teeth, and bones of other orders.

The Botanical Collection consists of—

1. An herbarium of over 2,000 species, mounted and labeled. It is specially full in the sets of grasses and sedges of this State, and ferns of the United States, each being nearly complete. A private herbarium of 1,500 species is also accessible to students.

2. A set of 300 economic products of plants, presented by Dr. G. L. Goodale, Director of Botanic Gardens, Cambridge, Mass.

3. A set of native woods of this and adjoining counties, seeds, sections, and moist preparations.

The Peirce Conservatory furnishes an abundance of fresh material for illustration.

Additions.—Early in the year the valuable collection of Dr. Jos. Gardner, of Bedford, Indiana, was purchased for the Museum. This collection embraces a large number of species of recent shells from the shores and islands of the Pacific and Indian Oceans, Tertiary fossils from California, many beautiful and valuable specimens of minerals from all parts of the world, besides a quantity of miscellaneous material. All the specimens are in good condition and well preserved. Donations have been received during the year from many friends. The most important of these is a set of specimens of woods collected for the Forestry Department of the Census Bureau, and distributed by Prof. C. S. Sargent.

Apparatus.—The department of Natural History is supplied with both simple and compound microscopes, reagents and mounting materials. There are nineteen dissecting microscopes—one Beck's Improved Dissector, with two Coddington lenses ($\frac{3}{4}$ and $\frac{1}{2}$ inch), and eighteen of Bausch and Lomb's "Compact" dissecting microscopes, with two single lenses ($\frac{3}{4}$ and $\frac{1}{2}$ inch). There are seventeen compound microscopes. One is Beck's "Large Best" Monocular, with a battery of objectives from 3 inch to $\frac{1}{20}$, and a full set of accessories; the remainder are Beck's New Economic stands, furnished with two oculars (Nos. A and C) and two objectives, $\frac{2}{3}$ and $\frac{1}{6}$.

For projections there is a first-class lantern, furnished with a large assortment of slides illustrating human and plant anatomy. This is convertible in a few moments into a projecting microscope by means of which the image of any transparent microscopic preparation can be thrown on the screen. Light is furnished by the electric lamp.

INDUSTRIAL ART.

This department is supplied with (1) flat copies for outline drawing; (2) flat copies in light and shade for crayon work; (3) colored copies for water color painting; (4) flat copies for carpentry, architectural, and machine drawing; (5) charts to illustrate the botanical analysis of plants for purposes of design; (6) charts to illustrate analysis of historical ornament; (7) charts to illustrate harmony and contrast of color; (8) a great variety of geometrical solids, vases, and casts for model drawing; (9) samples of prints and other textile fabrics, wall paper, carpets, etc., to illustrate the application of design to manufactures; (10) appliances for modeling in clay; (11) a potter's wheel for turning pottery; (12) a kiln for burning small clay models and pieces of pottery; (13) an excellent selection of casts from ancient and modern sculpture, including busts of the Venus de Milo, Apollo de Belvidere, Diana, Psyche, Paris, Ajax, Michael Angelo, Raphael, and medium sized statues of Minerva, Psyche, Flora, and M. Angelo's Moses; (14) twelve very fine photographs of western scenery, taken under the supervision of the U. S. War Department, presented by Mr. James R. Pigman, of Lafayette, The Library also contains a number of very valuable books of reference and journals for the use of art students.

AGRICULTURE AND HORTICULTURE.

The means of illustration and practice in this department include the farm, containing about one hundred and fifty acres, the experimental ground of ten acres, with the Agricultural Hall previously mentioned, the Peirce Conservatory, with its large propagating house, recently added, the campus, orchard and nursery. The farm is stocked with Clydesdale and Norman-Percheron horses, Jersey cattle, and Essex and Berkshire swine. The experimental grounds contain a large number of varieties of grapes and small fruits, grains and grasses, for study and comparison; while the Agricultural Hall is made the meteorological station where instruments and records are kept, and where the taking of regular tri-daily observations familiarizes the students with the signal service work as carried on at regular stations. The Conservatory is well filled with choice plants, illustrating many families, and all the processes in floriculture are here carried on. The campus, nursery and orchard furnish ample means for observation and training in horticulture in other directions.

MECHANICS.

The shops of the Mechanical Department are well equipped for doing work in both wood and iron. The tools and machines were selected with reference to the special work for which they are used, and though not elaborate, are all of superior quality. Where duplicate appliances are provided, with a few exceptions, they represent different makers; thus adding to the variety, and affording an extensive field for observation and study. Motive power is supplied by a twelve-horse steam engine. The arrangement of shafting for distributing the power is complete; in general, the entire system does not differ from that of any well regulated manufacturing establishment.

The shops are provided with the following appliances:

1. For bench work in wood, there are nine carpenter benches fitted with vises, bench stops, and drawers. Each bench is supplied with a complete set of carpenter's tools, including three saws, three planes, set of firmer chisels, set of framing, set of auger bits, a bit brace, drawing knife, screw driver, hatchet, hammer, mallet, try-square, framing square, bevel, gauges, rule, etc. Besides these, there are ploughs, rabbeting and beading planes,. saw clamps and sets, and an assortment of special wood-working tools.

2. For machine work in wood, there are five turning lathes, one double circular saw, one scroll saw for irregular sawing, and one sorrento saw. The lathes are each supplied with chisels, gouges, compasses, calipers, a rule, parting tool, etc.

3. For vise work in iron, there are two benches fitted with eight vises. There is a drawer for each vise which is supplied with a chipping and riveting hammer, an assortment of cold chisels and files, steel square, compasses, calipers, hand vise, scriber, etc. There are also taps, dies, reamers, and other miscellaneous tools.

4. For forging, there are five forges, one portable and four larger ones, capable of doing heavier work. These are supplied with air blast by a Sturtevant blower driven by power. Each forge has a tank for coal and for water, an anvil, hammer, square, calipers, and a good variety of tongs, chisels, punches, etc. The forge shop is also provided with sledges, sledging tools, and a bench conveniently fitted with a vise.

5. For machine work in iron, there are two machine lathes, one speed lathe for centering and finishing, one machine planer, with chuck and centers, one vertical drill, and a double emery grinder. There is also a supply of lathe chucks, drills, reamers, gauges, scales, etc.

The shops are fitted with cases for tools and for the reception of work. Additional tools and machines will be added before the beginning of next year.

MATHEMATICS.

The department of Mathematics is furnished with a celestial globe twenty inches in diameter, and a terrestrial one of the same dimensions. An excellent engineer's level and an instrument combining in one a surveyor's compass, a transit and a theodolite, equip the surveying classes. The department is also supplied with a fine telescope, (made by Alvin Clark & Sons, Cambridge, Massachusetts), with an apperture four and a half inches, and focal distance six feet. This instrument shows the satellites of Jupiter and the rings of Saturn, and dissolves many of the double stars and the principal nebulæ.

THE ACADEMY.

The University Academy is fully supplied with reference books, charts, maps, microscopes, etc. Among these are included a Universal Biographical Dictionary, a Universal Gazetteer, two of Webster's Unabridged Dictionaries (latest edition), Gould Brown's Grammar of English Grammars, Zell's Encyclopedia, Johnson's Encyclopedia (8 volumes), and Gray's Anatomy, all kept upon a reference table, to which the students are free to go at any time. There have been added to its apparatus complete sets of Guyot's largest physical maps, and Cutter's largest charts of human and comparative anatomy. To the library, for its use, there has been added a complete set (4 volumes) of Bryant's History of the United States, Draper's Civil War in America (3 volumes), Parkman's Conspiracy of Pontiac (2 volumes), Cooper's

History of the Navy, Memoirs of Franklin (2 volumes), and Frothingham's Rise of the Republic of the United States. The other departments of the University and the library furnish abundant means for practical illustration in every line of study pursued in this department.

LIBRARY.

The Library occupies a commodious and well-lighted room, appropriately fitted and furnished. It contains a valuable collection of books of reference in each department, and a goodly number of miscellaneous works, many of standard value. The number of volumes in the Library January 1, 1882, exclusive of pamphlets and unbound works, was 2,226, an increase for the year or 161 volumes.

The reading room is supplied with the following journals and periodicals, viz.: Nature, Chemical News, Chemisches Central Blatt, Science, American Monthly Microscopical Journal, American Bee Journal, Trimen's Journal of Botany, Botanical Gazette, American Journal of Science, American Naturalist, Journal of the Royal Microscopical Society, Gardener's Monthly, Country Gentleman, American Agriculturist, National Live Stock Journal, Agricultural Gazette, Indiana Farmer, American Cultivator, Kentucky Live Stock Record, Scientific American and Supplement, Poultry World, Art Amateur, Art Interchange, Magazine of Art, American Machinist, The Blacksmith and Wheelwright, The Western Manufacturer, Ueber Land und Meer, Popular Science Monthly, Cassell's Family Magazine, Harper's Monthly, Harper's Weekly, The Century, Atlantic Monthly, Littell's Living Age, North American Review, Contemporary Review, The Athenæum, The Nation, London Weekly Times, the Watchman, the New England Journal of Education, Indiana School Journal, and several daily papers.

The works donated to the Library in the present year, include Messages and Documents War Department (5 volumes), Commercial Relations with supplement (1879), Report on the Culture of the Sugar Beet, Second Report U. S. Entomological Commission on the Rocky Mountain Locust, House and Senate Journals 2d Session, 46th Congress, Postmaster General's Report, 1880–81, Commerce and Navigation of the U. S., 1880, Messages and Documents State Department, 1880, Messages and Documents Navy Department, Report of the U. S. Fish Commission, 1875–6, Geology of the Henry Mountains, Total Eclipse of July 29, 1878, all by Hon. Godlove S. Orth, M. C.; Elementary Guide to Determinative Mineralogy, by Prof. C. R. Barnes; Elements of Knowledge, by the Author (Horace P. Biddle); and Practical Logic, by Eldredge & Brothers, Philadelphia.

SOCIETIES.

Four literary societies are open to students—the Irving, the Philalethean, the Carlyle, and the Periclean, the first and third for young men, the second for young women, and the fourth for academy students. The exercises consist principally of essays, declamations, debates, and orations, and are an efficient means of improvement in writing and speaking. The college societies have commodious halls, neatly carpeted and furnished.

A branch of the Young Men's Christian Association was organized by the students in 1880. It has held regular meetings, and has conducted bible classes each Sabbath afternoon.

MILITARY TACTICS.

Instruction in Military Tactics is provided for by the law of Congress endowing this institution, and for several years such instruction has been given. The joining of the company is *voluntary*, but, when a student becomes a cadet, he is held to regular attendance and military discipline during the period of his enlistment, which shall be for the college year. For unexcused absence or misconduct, a cadet may, at the Captain's discretion, be suspended from the company or be reported to the Faculty for discipline. The company is supplied with the best breech-loading rifles, with complete accoutrements. Upton's Tactics is used as a text-book.

Since November last the military department has been in charge of Lieut. W. R. Hamilton, U. S. A., detailed by the War Department as instructor in Military Tactics in Asbury University, and permitted by the Secretary of War to fill the same position in Purdue University. The cadets receive two to three drills a week.

EXPENSES, BOARDING, ETC.

EXPENSES.

The expenses incurred in attending Purdue University are very low. It is believed that few institutions afford equal advantages, at as low a cost.

The charges for the year 1882–83 will be as follows:

Entrance fee in College, per year	$5 00
Entrance fee in Academy, per term, $2.00; per year .	5 00
Incidental fee in all departments, per term	3 00
Chemicals and gas for general course in Chemistry, per term	5 00
Matriculation fee in Special Schools	10 00
Chemicals and gas for special course in Chemistry, per term	5 00
Table board, (Boarding House,) per week not exceeding	3 00
Room-rent, heat and light, per week	50
Washing, per dozen, not exceeding	75

From the above it is seen that a student's expenses for thirty-eight weeks in the Academy or College will be as follows:

Entrance and incidental fees	$14 00
Table board (at $3.00 per week)	114 00
Room, heat, and light.	19 00
Washing, about	12 00
Total for the year, about.	$159 00

All bills must be paid *in advance*, entrance and incidental fees at the beginning of the term or year, and room-rent at the beginning of each term. A pro rata part of all fees paid in advance will be refunded to students who are withdrawn on account of sickness.

Students taking a course in Chemistry are required to deposit with the Registrar five dollars a term in advance as a breakage fund. The money that is not used will be refunded at the close of the term.

YOUNG MEN'S DORMITORY.

The young men occupying rooms in the Dormitory are required to keep them in good order and to observe all other rules governing their occupancy. A failure to observe such rules, or other disorderly conduct, forfeits a student's right to a room. No firearms are allowed to be kept in the rooms. The occupants of rooms are held responsible for all injury to the same or to furniture and fixtures therein, and all gas burned after ten o'clock is charged extra. As a condition of occupying a room, a student must deposit with the Registrar five dollars, as a fund to pay for breakage, extra gas, and other fines. When he withdraws from the Dormitory, or at the close of the year, so much of this money as is not required to pay charges will be refunded. Members of the Freshman and Sophomore classes, and of the Academy, are not allowed to visit the city of Lafayette in the evening, except by permission.

Each suite of rooms in the Dormitory is furnished with bedsteads, washstands and sets, and tables and chairs. Mattresses and bedding, towels, soap, mirrors, brooms, etc., are furnished by students. Young men occupying rooms may procure table-board at the Boarding House, or elsewhere, as they may prefer, but self-boarding in the Dormitory is not allowed. Boarders will not be received at the Boarding House for less than a term, but permission to leave will be granted by the President if the board is not satisfactory.

THE LADIES' HALL.

The young ladies occupying rooms in the Ladies' Hall are required to keep them in good order and to observe all rules governing their occupancy. Gas consumed after ten o'clock, and the cleaning of rooms while occupied, will be charged extra.

The rooms are neatly carpeted, and are furnished with bedsteads and mattresses, washstands and sets, tables and chairs. The occupants furnish bedding, towels, mirrors, etc. The young ladies who occupy rooms are under the personal supervision of a lady member of the faculty. Only twenty young ladies can be accommodated with rooms.

PRIVATE BOARD.

Students who may not wish to board in the University can obtain board in private families in Chauncey at reasonable rates. Good accommodations for self-boarding, or for club-boarding, can also be secured in Chauncey, and the cost of board, not including room, may thus be reduced to $2.00 to $2.50 per week. A good sidewalk extends from the University to the village.

STUDENTS APPOINTED BY COUNTY COMMISSIONERS.

A law passed March 12, 1877, gives the Board of Commissioners of each county of Indiana the authority to appoint two students, residents of the county, to Purdue University, and the students thus appointed are exempt from the payment of entrance and incidental fees, and the regular charges for room, heat, and light. The reduction thus provided for amounts to $33 a year, or about one-fifth of all necessary expenses of a student. Sixty-eight of the students in attendance the present year were appointed. The students appointed must reside in the county. For law see page 75.

WORK.

The farm is cultivated with improved implements, and hence there is but little work which can be done by students. The teams must be handled and cared for by regular hands. About the only assistance which students can render is in harvesting the fall crops and in the care of stock, and this work, as well as that needed on the University grounds, in the nursery, orchard and green-house, and in the experimental field, is chiefly done by *the students taking the Agricultural Course.* The amount of other work to be done by students is very limited, and no one should come to the University depending upon work, if he has not made a successful application for it. Students taking the Mechanical course have an opportunity to do extra work.

APPLICATIONS.

Application for admission to any department of the University should be made to the President, and prior to the opening of a year or term, when this is practicable. In making application by letter, applicants are requested to give their age, the studies which they have pursued, and a general idea of their attainments. A catalogue will be sent to any address, on application, with directions. Address, President of Purdue University, Lafayette, Indiana.

ANNOUNCEMENTS FOR THE YEAR 1882-83.

FIRST TERM.

The first term, sixteen weeks, begins Thursday, September 7, 1882, and ends Friday, December 22, 1882.

SECOND TERM.

The second term, twelve weeks, begins Wednesday, January 3, 1883, and ends Friday March 23, 1883.

THIRD TERM.

The third term, ten weeks, begins Tuesday, April 3, 1883, and ends Thursday, June 7, 1883.

COMMENCEMENT THURSDAY, JUNE 7, 1883.

ENTRANCE EXAMINATIONS.

Examinations of applicants for admission to the University (College and Academy) will be held June 5 and 6, and September 5 and 6, 1882. Entrance examinations will be held in the several counties of the State, under the direction of County Superintendents, *the last Saturday of July*, 1882. See pages 32 and 48.

EXHIBITIONS.

The annual exhibition of the Junior Class (if any) is held the last week of the first term, and the annual entertainments of the Literary Societies the last week of the second term.

CALENDAR FOR 1882–83.

Session days are indicated by bold-face figures.

1882—JULY TO DECEMBER.

JULY.

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

AUGUST.

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

SEPTEMBER.

S	M	T	W	T	F	S
					1	2
3	4	5	6	**7**	**8**	9
10	**11**	**12**	**13**	**14**	**15**	16
17	**18**	**19**	**20**	**21**	**22**	23
24	**25**	**26**	**27**	**28**	**29**	30

OCTOBER.

S	M	T	W	T	F	S
1	**2**	**3**	**4**	**5**	**6**	7
8	**9**	**10**	**11**	**12**	**13**	14
15	**16**	**17**	**18**	**19**	**20**	21
22	**23**	**24**	**25**	**26**	**27**	28
29	**30**	**31**				

NOVEMBER.

S	M	T	W	T	F	S
			1	**2**	**3**	4
5	**6**	**7**	**8**	**9**	**10**	11
12	**13**	**14**	**15**	**16**	**17**	18
19	**20**	**21**	**22**	**23**	**24**	25
26	**27**	**28**	**29**	**30**		

DECEMBER.

S	M	T	W	T	F	S
					1	2
3	**4**	**5**	**6**	**7**	**8**	9
10	**11**	**12**	**13**	**14**	**15**	16
17	**18**	**19**	**20**	**21**	**22**	23
24	25	26	27	28	29	30
31						

1883—JANUARY TO JUNE.

JANUARY.

S	M	T	W	T	F	S
	1	2	**3**	**4**	**5**	6
7	**8**	**9**	**10**	**11**	**12**	13
14	**15**	**16**	**17**	**18**	**19**	20
21	**22**	**23**	**24**	**25**	**26**	27
28	**29**	**30**	**31**			

FEBRUARY.

S	M	T	W	T	F	S
				1	**2**	3
4	**5**	**6**	**7**	**8**	**9**	10
11	**12**	**13**	**14**	**15**	**16**	17
18	**19**	**20**	**21**	**22**	**23**	24
25	**26**	**27**	**28**			

MARCH.

S	M	T	W	T	F	S
				1	**2**	3
4	**5**	**6**	**7**	**8**	**9**	10
11	**12**	**13**	**14**	**15**	**16**	17
18	**19**	**20**	**21**	**22**	**23**	24
25	26	26	28	28	30	31

APRIL.

S	M	T	W	T	F	S
1	2	**3**	**4**	**5**	**6**	7
8	**9**	**10**	**11**	**12**	**13**	14
15	**16**	**17**	**18**	**19**	**20**	21
22	**23**	**24**	**25**	**26**	**37**	28
29	**30**					

MAY.

S	M	T	W	T	F	S
		1	**2**	**3**	**4**	5
6	**7**	**8**	**9**	**10**	**11**	12
13	**14**	**15**	**16**	**17**	**18**	19
20	**21**	**22**	**23**	**24**	**25**	26
27	**28**	**29**	**30**	**31**		

JUNE.

S	M	T	W	T	F	S
					1	2
3	**4**	**5**	**6**	**7**	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

RULES AND REGULATIONS.

MATRICULATION REGULATIONS AND PLEDGE.

1. No society is permitted to be organized by the students, except by consent of the Faculty, and the public exercises of the societies thus organized are subject in time, place and character to the approval of the Faculty.

2. No student is permitted to join or be connected as a member or otherwise with any so-called Greek fraternity or other college secret society, and, as a condition of admission to the University, or promotion, or graduation, or honorable dismission, students shall be required to sign a written statement that they are not connected with any such society. An applicant for admission, who has been a student in another college, and there joined a college secret society, is required to discontinue his active connection with such society while he is a student in Purdue University.

3. Students who desire to be absent from any recitation or other exercise, are required to obtain leave of absence. Students absent without previous permission can only be excused by the President or by the Faculty, and they shall be permitted to recite but twice in any class before producing a written statement that their absence has been reported to the President. The absence of Academy students must be reported to and excused by the Principal before reciting. Students are not permitted to absent themselves from the University in term time without leave of absence.

4. Any student suspended by the faculty may be required to leave the University and its immediate vicinity (including the village of Chauncey, if a non-resident,) within a specified time, and no suspended student is allowed, during his suspension, to visit any of the buildings of the University or to come upon the University grounds for any purpose, except by permission of the President or other officer having authority to grant such permission. Students who do not occupy rooms in the Dormitory, are forbidden to visit the same at any time except by permission.

5. The frequenting or visiting of saloons or other places where intoxicating liquors are sold, is forbidden, and any student who violates this regulation may be suspended or expelled from the University. Smoking in or about the University buildings or on the grounds is forbidden.

6. As a condition of admission to the University or any department therein, students shall be required to subscribe to the foregoing regulations, and all other regulations of the University relating to the obligations and duties of students, and promise a faithful compliance therewith during their connection with the University; that is, until dismissed or graduated.

PLEDGE.

I hereby subscribe to the foregoing regulations and all other regulations of Purdue University which relate to the duties and obligations of students, and I promise on my honor a faithful compliance therewith during my connection with the University as a student.

FACULTY.

1. The College Faculty is composed of the president and the professors and instructors who have charge of departments of the College or of Special Schools, and are regularly employed. The Academy Faculty is composed of the president, the principal of the Academy, and the associate lady instructor. The General Faculty is composed of the members of the College Faculty and of the Academy Faculty.

2. Students in the College and in the Special Schools are admitted, classified, and governed by the College Faculty, and students in the Academy by the Academy Faculty. In cases of discipline in which both college and academy students are involved, the General Faculty has jurisdiction.

3. Students who have not been regularly admitted by the Faculty or the President, shall not be received into any class or department of the University by any professor or instructor, and no professor or instructor shall use the rooms, appliances, or materials, belonging to the University, to give instruction to private students, except by permission of the Board of Trustees.

CLASSIFICATION OF STUDENTS.

1. Students shall be admitted to the college classes by vote of the College Faculty, and no student shall be admitted to any special school, or to any special or irregular course of study, except on presentation of an entrance certificate, signed by the President.

2. Students admitted to the College are not permitted to take an irregular or elective course in the Freshman or the Sophomore year, but they are required to pursue one of the three regular courses of study, viz: the Scientific Course, or the Agricultural Course, or the Mechanical

Course. Applicants wishing to take a special course in one or two Special Schools will be admitted if they are prepared to do the required work. Regular students are not permitted to take both Latin and German in the Freshman and Sophomore years, or to take any special course in advance of their attainments in the regular course.

3. A student who is pursuing all, or all but one of the lines of study in any one of the prescribed courses for a given year, shall be classed as Freshman, Sophomore, Junior, or Senior, as the case may be. By a "line of study" in this regulation is meant science, or mathematics, or language, or English, or history, or industrial drawing, or agriculture and horticulture, or mechanics.

4. When a student is pursuing all the studies of his class in any prescribed course, he shall be considered as *regular;* but when he is behind his class in any study or studies to the extent in the aggregate of one-half year's work in a line of study, he shall be considered *irregular;* provided, that if a student, who is behind his class in any study, is in advance of it in other studies of the course, so that his advanced attainments are a full offset to his deficiencies, such student shall be considered regular.

5. A student's standing in any branch of study for a given term is determined by adding the results of the two examinations held and the average daily standing in recitations, and dividing the sum by three. An average standing of 70 to 100, thus determined, *passes* a student in any branch of study, and an average standing of less than 70 subjects the student to a condition. A student may be passed by the Faculty on an average standing of 60 to 70.

6. When a student is conditioned to such an extent that the removal of the conditions will, in the judgment of the Faculty, require one-fourth of his time for one year, such student shall be ranked as a member of the next lower class until such conditions are removed, and no student who has uncanceled conditions in Junior or Senior studies, is entitled to a degree.

7. A student who fails to reach a standard of 70, or more, at any examination, or is absent, shall not be entitled to a re-examination or an examination until the next succeeding examination of the class, and a student once re-examined shall not take another re-examination in the same year, except by permission of the Faculty. This regulation does not apply to Senior students who are candidates for a degree. Absence from any examination, without permission previously obtained, suspends a student until such suspension is terminated by the Faculty.

8. Students are classified in the Annual Register in accordance with their classification at the beginning of the year, or at the time of entrance if subsequently admitted; provided, that if conditions are met by students or their classification is changed by the Faculty prior to the third term, such classification shall be used in the Register.

LIBRARY AND READING ROOM.

1. The Library shall be open to members of the Faculty, students and employes of the University for reading and study, at such hours as the Faculty may prescribe, and, in these hours, conversation or other conduct which may divert attention, or otherwise annoy, shall not be allowed.

2. Any one wishing any book or periodical (dictionaries excepted) must apply to the Librarian for it, and, before leaving the room, the same must be returned to the Librarian, if not regularly drawn.

3. Books not marked "Reference Book" may be drawn from the Library and retained one week, and then may be redrawn for another week, but no book can be kept by one person longer than two weeks.

4. If a book is not returned within the week for which it was drawn the holder shall be subject to a fine of ten cents; if not returned within two weeks from the time it was drawn, to a fine of twenty-five cents; if not returned within a month, to a fine equal to the price of the book; and, if lost, to a fine of fifty per cent. more than the cost of replacing it.

5. Reference books, current periodicals and papers can not be taken from the Library room except by special permission of the Librarian, and then only from the closing of the Library to the first succeeding hour of opening.

6. A repeated violation of any of the foregoing regulations, or other rules, which may from time to time be prescribed, shall fofeit a student's right to the use of the Library for such time as may be designated.

7. It is the duty of the Librarian to enforce the above regulations.

HISTORICAL SKETCH OF PURDUE UNIVERSITY.

Purdue University had its origin in the Act of Congress of July 2, 1862, which "donated public lands to the several States and Territories which may provide Colleges for the benefit of Agriculture and the Mechanic Arts." The national grant was accepted by the State of Indiana, March 6, 1865, and a Board of Trustees, with the corporate name of "The Trustees of the Indiana Agricultural College," was organized for the management of the trust funds. This Board consisted of Governor Morton (*ex-officio* President), Alfred Pollard, of Gibson, Smith Vawter, of Jennings, Henry Taylor, of Tippecanoe, and Lewis Burke, of Wayne. Prior to the first meeting of the Board, held October 20, 1865, Mr. Pollard removed from the State, and Isaac Jenkinson, of Allen, was elected his successor. John J. Hayden, of Marion, was elected Secretary of the Board, and James E. Reeves, of Wayne, Treasurer. Mr. Reeves resigned May 1, 1866, and was succeeded by E. B. Martindale, of Indianapolis. The Board so constituted remained without a change in membership until March 7, 1870.

It was this Board that received the land scrip, amounting to 390,000 acres, and, April 9, 1867, sold it for $212,238.50. By careful and wise management, this endowment fund has been increased to $340,000, invested in a non-negotiable Indiana State bond, bearing five per cent. interest, payable quarterly. This Board also located the University, as stated below.

The act of 1865 made no provision for the location or the organization of the College. Governor Morton's special message to the General Assembly was followed by a strong rivalry between several places desiring the College, and the general sessions of 1863, 1865, 1867 and 1869 failed to settle the location At the special session in 1869, an act was passed, May 6, accepting a donation of $150,000 by John Purdue, on specified conditions; a donation of one hundred acres of land, appurtenant to the institution, by citizens of Chauncey; a donation of $50,000 by Tippecanoe county, and donations by the Trustees of the Battle Ground Institute, and by the Trustees of the Battle Ground Institute of the M. E. Church, both made on condition that the College be located at Battle Ground. This act located the institution in Tippecanoe county, at such point as the Trustees might determine before January 1, 1870, gave it the name of Purdue University, and provided for its organization and management. The location of the University was definitely fixed by the Trustees, December 22, 1869.

In March, 1870, the Board was partially reorganized. M. L. Peirce, of Lafayette, succeeded Mr. Jenkinson; Rev. Thomas Bowman, of Greencastle, Mr. Vawter; Dr. Joseph F. Tuttle, of Crawfordsville, Mr. Lewis Burke (resigned); and John Purdue became a Trustee by the act of the Legislature. Mr. Peirce was elected both Secretary and Treasurer, succeeding Messrs. Hayden and Martindale (resigned). In November, 1870, Dr. Tuttle and Henry Taylor resigned, and were respectively succeeded by John R. Coffroth and John A. Stein, both of Lafayette. In January, 1871, Mr. Stein was elected Secretary of the Board, and, by subsequent re-elections, Mr. Peirce has been continued Treasurer and Mr. Stein Secretary.

An act passed January 31, 1871, increased the number of Trustees to nine, including the Governor (*ex-officio* member and President of the Board), and provided that three of the Trustees should be members of the State Board of Agriculture, to be appointed by the Governor, on the recommendation of the State Board. The three Trustees appointed under this law, were I. D. G. Nelson, of Fort Wayne, John Sutherland, of Laporte, and L. A. Burke, of New Harmony. The Board was constituted as follows: Governor Baker, *ex-officio* President, John A. Stein, Secretary, Martin L. Peirce, Treasurer, John Purdue, John R. Coffroth, I. D. G. Nelson, Thomas Bowman, John Sutherland, and L. A. Burke. This Board, with the changes in its membership hereafter noticed, purchased the present site of the University, planned and constructed the first buildings (the main building excepted), and made provision for the opening of the institution.

Governor Hendricks succeeded Governor Baker in 1873. Dr. Bowman resigned in May, 1873, and was succeeded by Judge H. P. Biddle, of Logansport, who resigned in November following, and was succeeded by Col. B. C. Shaw, of Indianapolis, who resigned in October, 1874. Mr. Nelson resigned in 1874, and was succeeded by Austin B. Claypool, of Connersville. Mr. Burke resigned in June, 1874, to accept the position of Farm Superintendent.

THE OPENING OF THE UNIVERSITY.

In 1872, the Board expected to open the University the following year, and Prof. Richard Owen, of the State University, at Bloomington, was elected President (August 13, 1872), and Prof. John S. Hougham was appointed to a professorship. President Owen was to enter upon his duties upon receiving a three months' notice, but Professor Hougham entered at once into the service of the Board.

President Owen resigned March 10, 1874, and Supt. A. C. Shortridge, of Indianapolis, was elected his successor June 12, 1874. To comply with the Act of Congress, which required the institution to be opened as early as July, 1874, Professor Hougham took charge of a class March 2, 1874, and gave instruction until June. The University was formally opened September 17, 1874, with the following Faculty: A. C. Shortridge, President; John S. Hougham, Professor of Physics and Industrial Mechanics; W. B. Morgan, Professor of Mathematics and Engineering; John Hussey, Professor of Botany and Horticulture; H. W. Wiley, Professor of Chemistry, and Eli F. Brown, Professor of English Literature and Drawing.

The plan of organization adopted by the Board of Trustees was based on the theory of special education, and the instruction of the University was distributed among the following Special Schools: I. School of Natural Science, including (*a*) Physics and Industrial Mechanics, (*b*) Chemistry, (*c*) Natural History; II. School of Engineering, including (*a*) Civil Engineering, (*b*) Mining Engineering, (*c*) Architecture; III. School of Agriculture, including (*a*) Theoretical and Practical Agriculture, (*b*) Horticulture, (*c*) Veterinary Science; IV. School of Military Science. Detailed courses of study were adopted and announced in Agriculture, Chemistry, Engineering, and Physics and Mechanical Engineering.

The University was conducted on this plan of special education for two years, but there seemed to be little demand for the special courses of instruction provided. The only special students received entered the School of Chemistry, and most of these were in preparatory branches in other studies. Nearly all the students entered the preparatory classes.

At the close of the first year Mrs. Sarah A. Oren was appointed Professor of Botany, and Professor Hussey was transferred to the added chair of Latin and Modern Languages.

An act passed by the Legislature March 9, 1875, provided for the reorganization of the Board of Trustees. It reduced the number of Trustees to six, two to be nominated by the State Board of Agriculture, one by the State Board of Horticulture, and three to be selected and appointed by the Governor. It also provided that the Secretary and Treasurer should not be members of the Board. The law took effect August 24, 1875, and the Board was reorganized August 31, 1875, as follows:

John R. Coffroth, President, appointed by the Governor.
Mahlon D. Manson, appointed by the Governor.
Reuben Wells, appointed by the Governor.
John Sutherland, nominated by the State Board of Agriculture.
Robert P. Haynes, nominated by the State Board of Agriculture.
Joseph C. Ratliff, nominated by the State Horticultural Society.

President Shortridge resigned November 5, 1875, to take effect December 31, 1875, and Professor Hougham became Acting President. E. E. White was elected President February 17, 1876, and entered on the duties of the office May 1, 1876.

REORGANIZATION.

At the meeting of the Board of Trustees, held in June, 1876, President White submitted the plan of organization on which the University has since been conducted. The plan was unanimously approved by the Board.

The University was divided into three departments—the College of General Science, Special Schools of Science and Industry and the University Academy—as described above in the Register. The College was first organized with but one course of study, the Scientific Course, so arranged as to be a general preparation, not only for all industrial pursuits, but for the courses in the Special Schools.

In 1879 the College was made to embrace three courses—the Scientific Course, the Agricultural Course, and the Mechanical Course—and the Special School of Agriculture, with its "Experimental Station," and the School of Mechanics, with its workshop, were put into successful operation. It required four years "to work out" the plan outlined in 1876, and described in preceding pages.

The Faculty, as reorganized in 1876, was constituted as follows: E. E. White, President and Professor of English Literature; H. W. Wiley Professor of Chemistry and Physics; John Hussey, Professor of the Natural History Sciences; David G. Herron, Professor of Mathematics and Engineering; Edward P. Morris, Instructor in Latin and History Walter L. Dean, Instructor in Industrial Art; R. F. H. Weyher, Instructor in German; George R. Chase, Principal of the Academy, and Sarah A. Oren, Assistant Principal of the Academy.

In 1877 Charles E. Lambert succeeded Professor Morris; Langdon S. Thompson succeeded Professor Dean, and Edward E. Smith succeeded Principal Chase. In 1878 Olivia T. Alderman succeeded Mrs. Oren and in 1879 John A. Maxwell succeeded Professor Lambert. In 1879 Charles L. Ingersoll was appointed Professor of Agriculture and Horticure, and William F. M. Goss, Instructor in Mechanics. In September, 1880, Charles R. Barnes succeeded Professor Hussey, resigned, and Miss Edna D. Baker succeeded Mrs. Herron, *nee* Miss Alderman, resigned. In September, 1881, John A. Maxwell resumed the duties of the new chair of English and History; Miss Annie L. Peck entered upon her duties as Instructor in Latin; Guilford L. Spencer as Assistant Chemist; and in November Lieutenant W. R. Hamilton, United States Army, as Instructor in Military Tactics. Miss Eulora Miller was appointed Librarian in 1878, and reappointed in 1879; and in August, 1880, Moses C. Stevens was appointed Registrar and Librarian.

The following changes have occurred in the Board of Trustees since the reorganization in 1875: Hon. John R. Coffroth resigned December 21, 1877, and was succeeded by John C. Dobelbower, of Lafayette. Gen. M. D. Manson succeeded Judge Coffroth as President of the Board. Gen.

Manson resigned January 20, 1879, to enter on the duties of Auditor of State, and John S. Williams, of Lafayette, was appointed his successor. Mr. Sutherland succeeded General Manson as President of the Board. In March, 1881, Samuel H. Ragan, of Hendricks county, succeeded Mr. Sutherland, and Jacob Mutz, of Johnson county, succeeded Mr. Haynes. In April, 1881, Charles R. Peddle, of Vigo county, succeeded Mr. Wells, resigned, and in September, 1881, Alfred P. Edgerton, of Fort Wayne, succeeded Mr. Dobelbower. Mr. Joseph C. Ratliff was elected President of the Board in December, 1881.

The act of 1865 provided that if Mr. Purdue should cease to be a member of the Board, he should be continued as an Advisory Trustee during his lifetime. His trusteeship expired in 1875, and he then served the University as Advisory Trustee until his death, which occurred September 12, 1876.

STATE APPROPRIATIONS.

In 1873 the Legislature made an appropriation of $60,000 to Purdue University for the erection of a college building, the purchase of apparatus, the improvement of grounds, and other purposes—$30,000 to be paid June 1, 1873, and $30,000 June 1, 1874.

In 1875 the Legislature appropriated $10,000 for physical, mechanical, chemical and engineering apparatus; $4,000 for farm-house and barn; $4,000 for stock, agricultural implements, farming utensils, etc.; and $2,000 for library, etc. One-half of each appropriation was paid in 1875 and one-half in 1876.

In 1877 the Legislature appropriated $5,000 for payment of indebtedness incurred in 1876; $4,500 for allowances to trustees and officers ($1,500 in 1877, $1,500 in 1878, and $1,500 in 1879); $5,000 for apparatus, machinery, cabinets and fixtures; $2,000 for books and periodicals; and $3,000 for stock, experiments in agriculture and improvement of grounds. One-half of each of the last three appropriations was paid in 1877 and one-half in 1878.

In 1879 $4,000 was appropriated for current expenses; $4,000 for machinery and improvements, and for School of Agriculture, including agricultural experiments, and $1,000 for library—one-half of each appropriation to be paid in 1879 and one-half in 1880.

In 1881 the Legislature appropriated $20,000 for the fiscal year beginning Nov. 1, 1881, and $20,000 for the fiscal year beginning Nov. 1, 1882, each appropriation to be expended for University purposes, at the discretion of the Board of Trustees.

STUDENTS' LAW.

AN ACT authorizing the appointment of students to Purdue University by the Board of Commissioners of each county, and to provide for the admittance of such scholars, and defining their privileges therein.

SECTION 1. *Be it enacted by the General Assembly of the State of Indiana,* That the Board of Commissioners of each county in this State may appoint, in such manner as they may choose, two students or scholars to Purdue University, who shall be entitled to enter, remain and receive instruction in the same, upon the same conditions, qualifications and regulations prescribed for other applicants for admission to, or scholars in said University: *Provided, however,* That every student admitted to said University by appointment by virtue of this act, shall in no wise be chargeable for room, light, heat, water, tuition, janitor or matriculation fees, and said students shall be entitled in the order of admittance to any room in the University, then vacant and designed for the habitation or occupancy of a student, and such student so admitted, shall have prior right to any such room, subject to the rules of the University, over any student not appointed and admitted as aforesaid.

SEC. 2. That no more than two students at the same time, from any county, shall be entitled to admittance to said University under provisions of this act; but the Board of Commissioners of each county may, from time to time, appoint as aforesaid to any vacancy in their appointments.

SEC. 3. Whereas, an emergency exists for the immediate taking effect of this act, the same shall be in force from and after its passage.

Approved March 12, 1877.

J. D. WILLIAMS, *Governor.*

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